DAY CARE CENTER SIZE, QUALITY, AND CLOSING

By

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Given the paucity of research regarding child day care center size and quality of care provided, the problem in this study was to determine if an association existed between center size and center quality when quality was measured in terms of (a) staff/child ratio in conjunction with group size, (b) lead teacher education/experience, (c) activities and behaviors of children, and (d) center closings. In reference to a, b, and c, data were obtained from the 4-year-old children's classrooms in 17 centers funded through Title XX of the Social Security Act located within a single urban Florida county. Staff/child ratio in conjunction with group size was recorded at 10:00 a.m.; lead teacher education/experience was determined by questioning the lead teacher as to her number of years of schooling completed, the number of years she had worked in the center, and whether she had taken child-related courses; and activities and behaviors of children were reported in narrative form and as percents of time spent in activities classified as free choice, uniform participation, uniform

product, transitions, eating, and outside and percents of time spent in behaviors classified as on-task, off-task, wandering, disruptive, and hitting. The findings were reported for center size categories of 100+, 60-99, 30-59, and 12-29 children. In reference to d, the day care licensing records of the county were examined to determine the continuity of care provided measured in terms of the January 1, 1979, open/closed status of centers which had been licensed January 1, 1974. The findings were reported for five size categories of centers: those enrolling 100+, 60-99, 30-59, 12-29, and 6-11 children.

It was found that relative to center size and quality of care measured in terms of staff/child ratio in conjunction with group size, there was no meaningful relationship. Centers of 100+ children tended to have the smallest staff/child ratios and the largest groups. Furthermore, 15 of the 17 centers were within the recommended National Day Care Study ranges relative to staff/child ratios and 14 of the 17 centers were within the maximum recommended group size. Lead teacher education/experience was not consistently related to center size. Lead teachers in centers of 100+ children tended to have more experience in the centers and the fewest years of schooling. All but one of the 17 lead teachers had taken child-related courses. Generally, proportionally greater amounts of time were spent in free choice activities and on-task behavior and generally proportionally less time was spent in transition activities and disruptive behaviors in centers of 100+ children. The centers most in contrast to the centers enrolling 100+ children relative to time spent in transitions, free choice, and on-task behavior were centers in the 60-99 size category.

In regard to continuity of care as measured in terms of center closing, stability of the day care center was found to decrease as center size decreased. In the 100+ enrollees size category almost 96% of the centers open on January 1, 1974, were still open five years later, whereas, in centers of 6-11 children, only 40% were still open.

At a global level, when all variables were considered, centers of 100+ children appeared to be providing the highest quality of care, and centers of 60-99 the lowest quality of care; yet, beyond these two comments, there was no meaningful relation to size.

CHAPTER I

INTRODUCTION

Background and Rationale

Historically, at the federal, state, and local levels, controversy has existed over the appropriateness of governmental intervention in child day care operation through the licensing process, the nature of the specific aspects of day care which should be subject to regulation, and the level of quality of care which should be required of providers. As of 1980, these controversies have not been resolved. Nor has research provided a solid base for the decision-making process. Different groups have conflicting interests in day care regulation.

Federal Regulation of Day Care

In 1978, 11,000,000 children in the United States under the age of 14 spent a substantial part of their week in a child care arrangement. The federal government subsidized approximately $2.5 billion of the total child care cost of $8.8 billion (Aaron, 1978, p. xix). The largest single federal day care funding source was the United States Department of Health, Education, and Welfare (HEW) under Title XX of the Social Security Act. The quality of care provided children in federally funded day care is, therefore, a legitimate concern of those who enact the legislation authorizing such care.

As an expression of legislative concern for children, the Economic Opportunity Amendments of 1967 [P.L. 90-222, 107(a); 42 U.S.C. 2932(d)] were enacted directing the United States Secretary of HEW and the Director of the Office of Economic Opportunity to establish a common set of standards, regulations, and mechanisms for coordination of federally sponsored day care programs (Aaron, 1978, p. vi). In response to this amendment the Federal Interagency Day Care Requirements (FIDCR, 1968) were written to assure that centers funded by the federal government would provide quality day care.

Resistance to the implementation of FIDCR was widespread. States found ways of avoiding federal regulations and reverting to less stringent requirements. In response to this resistance, certain of the FIDCR were temporarily modified, changed from requirements to recommendations, temporarily withdrawn, or declared unnecessary for certain designated federally funded child care programs (Aaron, 1978, p. vii). Despite considerable lack of compliance to even the modified FIDCR, in no instance did the federal government withhold or deny federal funds to a noncomplying program (Aaron, 1978, p. 151). Thus the legislative intent to protect children was not met, and children may have received care of a poorer quality than was mandated for them.

According to Aaron (1978), lack of compliance to the FIDCR resulted from a combination of factors, among which were questions centering on the appropriateness of the requirements. Therefore, legislation was enacted [P.L. 93-647, sec. 2002(a)(a)(B) of the Social Security Act] in which the United States Congress mandated that the Secretary of HEW submit to Congress "an evaluation of the appropriateness" of the FIDCR "together with any recommendations he may have for modifications of those requirements" (p. v).

In response to this mandate, Henry Aaron, HEW Assistant Secretary for Planning and Evaluation, coordinated the most extensive research concerning day care ever undertaken. In January, 1978, HEW published the preliminary results of the research. In the report of that research, it was concluded that the FIDCR should be revised in accordance with information obtained from research and extensive consultations with groups interested in child care services. The revisions were drawn and the proposed new regulations were submitted for public hearings in the fall of 1979. Publication of the final regulations with a form and content applicable to each of the federally subsidized day care programs for children was scheduled for April, 1980 (Aaron, 1978, pp. 159-181).

One aspect of the research reviewed by HEW was the National Day Care Study (NDCS), an extensive four year study of existing day care. According to the final report of the NDCS findings (Ruopp, 1979, p. 13), those variables which could be regulated which were shown to be predictive of quality in day care were staff/child ratio, group size, and lead teacher child-related education/training. In the final report it was noted that staff/child ratio and group size were inextricably related and should be regulated jointly in a single classroom composition requirement. After completing the study, the researchers recommended that, in the revision of the FIDCR, group size and staff/child ratio be considered as interrelated variables, and that the allowable maximum group size should equal twice the allowable maximum staff/child ratio, thus maximizing the cost/benefit effects.

Aaron (1978) discussed each of the NDCS researched variables in terms of the justification for its inclusion in the revised FIDCR.

Additionally, he discussed four variables which had not been researched sufficiently to determine the appropriateness of their inclusion in the FIDCR: age of entry, continuity of care, hours in care, and center size.

Aaron (1978) made the following comments on center size:

> SIZE OF THE PROGRAM: . . . The meager evidence available indicates that interpersonal dynamics, complexity, availability of resources, etc., probably vary with size of the program and that very large and very small programs may tend to have more undesirable characteristics than medium size programs. (p. 96)

Additionally, Aaron (1978) stated: "A recent study of Prescott and Jones (1972) indicates that program size is associated with another area of serious concern--staff turnover" (p. 98).

At the time of this study, parents, state legislators, educators, and day care operators still were awaiting the publication of the revised FIDCR. These groups have had extensive financial, theoretical, and practical concerns regarding the outcome of the revisions. It was seen to be of prime importance that due consideration be given by the federal government to all of the aspects involved in devising a new set of enforceable standards based on valid research. The implications involved in regulating the size of centers will always be great enough that such regulations should be made only when the research evidence is conclusive.

State Regulation of Day Care

Not only is child care a concern of the federal government, but it is also a concern of the states. After 1863, when a board was created to inspect certain types of child care facilities in New England, state legislators became increasingly involved in the regulation of child care facilities. State regulation was necessitated by widespread scandals comparable to the scandal at the state almshouse in Massachusetts, where all but 15 of the 153 infants admitted between 1868 and 1873 died during that five-year period. Pennsylvania enacted the first child care licensing law in 1885. Although other states gradually enacted licensing legislation, in 1971 state licensing of family day care homes (as opposed to day care centers) was not mandatory in 12 states; day care center licensing was voluntary in Mississippi; center licensing had been overturned by courts in Idaho; and, in a few states, centers in certain cities and counties were exempted from licensing. The consensus of state officials in 1971 was that licensing regulations needed reviewing and changing (A Survey of State Day Care Licensing Requirements, 1971, pp. 5-12).

Florida was one of those states found to be in need of licensing review and change. Standards for child care programs in Florida, which had become law without the Governor's approval in 1941, applied only to counties having a population of over 267,000 (Chapter 21013, Laws of Florida, 1941). Thus, only in Dade, Duval, and Orange Counties was the care of children subject to licensing from 1941 until 1975 when the Florida legislators enacted licensing standards applicable to all family day care homes and day care centers in the state (Minimum Standards for Day Care in Florida, 1975). Controversy generated during the public hearings for the proposed 1975 licensing did not abate after the enactment of compromise legislation. Administrators of proprietary day care centers, nonprofit church-affiliated centers, federally funded centers, and health and fire regulatory agencies were unable to reach agreement concerning the appropriateness of various aspects of regulation which purportedly would improve the quality of care provided but also would increase the cost of providing that care. It was believed that such issues would continue to be debated in Florida as long as trade-offs exist between the quality of care desired and the financial costs of providing that care.

Regulation of Day Care Centers in an Urban Florida County

The effects of regulation of day care centers may not only be examined with reference to nationwide or statewide effects, but also with reference to the effects in a particular locale. Although day care centers in the urban Florida county selected for the study reported herein had been regulated since 1941 by the Florida Division of Family Services, the enactment of statewide licensing in 1975 significantly altered day care in the county. The 1975 regulations increased the cost of care for certain day care providers by requiring structural building changes to meet fire and safety requirements, and significantly reduced the cost to providers by altering the required staff/child ratios. The 1967 regulations required a minimum staff/child ratio of 1 adult to every 10 children age 2 through 5 years. Under the 1975 state standards a minimum of 1 caregiver had to be available for every 12 2-year-olds, 15 3-year-olds, 20 4-year-olds, and 25 5-year-olds (Child Care Standards, 1975). Various factions in the urban county regretted the relaxation of the 1967 standards, whereas other factions considered even the 1975 standards to be too restrictive. Such discussions and controversy were predicted to continue as long as the research did not provide more definitive answers to questions of day care goals and quality, and as long as the costs of quality care remained prohibitive without governmental subsidization.

Problems of Day Care Research

Prior to 1979, research regarding day care was confounded by: (a) the lack of consensus concerning a definition of quality care, (b) the lack of validity of instruments designed for one model of day care utilized in evaluating programs designed from a different model, (c) the fact that most day care research had been conducted in model programs, (d) the lack of research of national scope, and (e) the lack of replication.

As previously discussed and as detailed further in Chapter II, certain limitations of the research concerning day care were resolved following the publication of the extensive findings of the NDCS. However, the question of the relationship of quality care to the variable of day care center size was not answered in the NDCS. Initially the variable of size was considered for inclusion in the NDCS (NDCS, 1977), but was omitted from the final design, which utilized staff/child ratio, caregiver qualifications, and group size as independent variables indicative of center quality. No rationale was given for this omission.

Consensus was found in the literature regarding the relationship of center size to center quality (see pp. 29-32). Writers agreed that centers of large size tended to provide the poorest quality programs. However, they made their statements with reference to data obtained in the following descriptive studies: Prescott and Jones (1967), in which centers of 12-29, 30-59, and 60-99 enrollees were examined and Fitzsimmons and Rowe (1971), in which centers of up to 197 enrollees were examined. Three centers in Fitzsimmons and Rowe's study enrolled in excess of 100 children, and none did so in Prescott and Jones' study. Because the finding of Prescott and Jones and of Fitzsimmons and Rowe relative to the relation of large size to poor quality has been widely quoted without qualifying the statement by numerically defining large size, it would appear that additional research is needed to determine if the belief commonly held concerning large centers is appropriate for centers of 100+ enrollees as well as for centers of 60-99 enrollees.

As evidenced by a review of the literature, considerable controversy has existed concerning the goals of day care. Regardless of the goals of a particular day care model, unless the children are involved in reaching the stated goals, the intended goals of a center cannot be reached and the quality of the center will not be adequate for goal attainment. Therefore in the study reported herein, the variable of behavior of children was measured in terms of whether it was "on-task," "off-task," "wandering," or "disruptive," to determine whether or not a center was providing quality care as defined by the goals set by the teacher for the children's behavior and to determine the level of the children's involvement in reaching the goals of the program. The variable of children's activities was included in the study to identify the activities toward which the children were supposed to be focusing their attention and behavior.

In Aaron's report on the revision of the FIDCR (1978, pp. 86-90), he recommended that the promotion of continuity of care be considered as a new area for regulation. Research indicated that the quality of care provided children was improved when care was consistently provided by a particular caregiver for an extended period of time.

Decisions must be made at the local level by parents in selecting a day care center, by administrators of voluntary agencies in justifying funding for particular day care centers, by proprietors of day care centers in determining center size, by reviewers of licensing regulations in determining the appropriateness of regulations, and by administrators of federal funds in selecting centers to receive federal support. Given the public need to make decisions about day care, a study seemed to be important in the urban county in regard to the association of center size and quality of care defined in terms of staff/child ratio in conjunction with group size, lead teacher education/experience, and activities and behaviors of children. In addition, an analysis of center closing, which gives some idea of the continuity of care provided, was needed.

Therefore, the legitimate question became: Is size associated with one or more of those four variables which may be considered to be indicative of center quality: staff/child ratio in conjunction with group size, lead teacher education/experience, activities and behaviors of children, and continuity of care?

The Problem

Statement of the Problem

The aim in the present study was to determine whether an association existed between center size and selected variables in day care centers in an urban Florida county, and to describe any associations found to exist.

Specifically, the following questions were investigated:

1. When day care centers in which the majority of enrollees are eligible for day care funded by Title XX of the Social Security Act are grouped according to size, is there a difference in the quality of care measured in terms of (a) staff/child ratio in conjunction with group size, (b) lead teacher education/experience, and (c) activities and behaviors of children?
2. Is there a difference in continuity of care, measured in terms of center closing, when centers are grouped according to size?

Delimitations and Limitations

1. In answering the first question posed in the study, center size was confined to four categories: 100+, 60-99, 30-59, and 12-29 enrollees. The selection of the categories was made to correspond to the categories reported in the major studies in the literature concerning the relationship of center size to center quality, and to add the category of 100+ children to the categories reported in the literature.
2. In answering the second question posed in the study, center size was confined to five categories, 100+, 60-99, 30-59, 12-29, and 6-11 enrollees. The addition of the 6-11 size category was made because day care centers in the urban county

were defined as enrolling 6 or more children, in contrast to family day care homes which enrolled less than 6 children.

3. Data relative to (a) staff/child ratio in conjunction with group size and (b) activities and behaviors of children were confined to that obtained from a minimum 160 minutes of observation in a selected 4-year-old children's classroom in each of the 17 centers located in the urban county and enrolling a minimum of 12 children in which a majority of the children were funded by Title XX of the Social Security Act as of January 1, 1980.
4. Data regarding lead teacher education/experience was confined to that provided by the lead teacher in each of the selected classrooms in each of the centers in response to a researcher-prepared instrument in which three basic questions were asked: How many years of schooling have you had? How many years have you been employed at this center? Have you taken child-related courses?
5. The examination of day care center closings was limited to those day care centers licensed in the urban county on January 1, 1974, in relation to whether or not they were still licensed on January 1, 1979. The number of day care centers licensed on January 1, 1974, was 278.

Since this study of quality of care provided was limited to centers receiving Title XX funding and operating in a single Florida county, the findings may be only suggestive of associations to be found in other locales with similar funding sources. The study was an _ex post facto_ design; therefore, interpretation was limited to inferences concerning the association of the dependent variables to center size rather than inferences about their cause and effect.

Definition of Terms

Activities and behaviors of children. The term used to describe the categories of activities utilized in the observation and the categories of behaviors utilized within these activities during the period of observation of children in their classroom settings.

Activity category. Activities of children categorized as free choice, uniform participation, uniform product, transition, eating, or outside.

Age of entry. The age at which a child enters a day care program.

Behavior category. Behaviors categorized as on-task, off-task, wandering, or disruptive.

Caregiver. A person who provides direct care to children in a day care setting, including classroom teachers and aides.

Center closing. A day care center which had been licensed and operating on January 1, 1974, but was closed as of January 1, 1979.

Center size. The total number of children enrolled in a day care center as of the date of the on-site visit conducted as a part of the study. For the part of the study dealing with Title XX centers, the centers were grouped into size categories based on enrollment of 100+, 60-99, 30-59, and 12-29 children. For the part of the study dealing with continuity of care, the centers were grouped into size categories based on licensed capacity of 100+, 60-99, 30-59, 12-29, and 6-11 children.

Compliance. The process of conforming to regulations; behaving or operating in accordance with regulations (Aaron, 1978, p. 209).

Continuity of care. The stability of the caregiving situation, measured in the study reported herein in terms of the extent to which day care centers which were licensed on January 1, 1974, were still licensed on January 1, 1979.

Curriculum. A planned set of activities and materials carried out with a group of children in a day care setting and designed to achieve certain goals for children in care, such as age-appropriate social, emotional, physical, and cognitive growth.

Day care. The care provided to a child inside or outside the child's home, by a person or persons other than a member of the child's immediate family, during some portion of a 24-hour day (Aaron, 1978, p. 209).

Day care aide. A person who assists a lead teacher or primary caregiver in the direct care of children in a day care setting (Aaron, 1978, p. 211).

Day care center. A facility in which care is provided part of a 24-hour day for a group of six of more children in the state of Florida.

Day care provider. An individual, organization, or corporation that provides day care services for children (Aaron, 1978, p. 212).

Disruptive behavior. A behavior category which occurs when a child's behavior disrupts focus of one or more classmates.

Eating. An activity category involving snack or meals, beginning when the majority of children are permitted to eat and ending when the majority are permitted to leave the table.

Enrollee. A child listed on the roll book at a center.

FIDCR. The Federal Interagency Day Care Requirements issued in 1968 that specify requirements that must be met in the provision of day care funded under certain federal programs (Aaron, 1978, p. 212).

Focus. The centering of a child's attention on the activity required by the teacher.

Four-year-old classroom. The classroom for children born in 1975 in each of the selected centers. When more than one classroom in a center had children born in 1975 the classroom having the greater proportion of its enrolled children born in 1975 was selected.

Free choice activity. An activity category during which the majority of the children are engaged in an activity in which they have either individually selected the activity in which they wish to participate and/or participated in a teacher-selected activity in a manner chosen by the child. In either case, the child need not engage in the activity in a teacher-directed prescribed manner; i.e., doll house play, block play.

Grandmother. A low-income senior citizen assigned to work in a center, paid by a federally funded program for senior citizens, and counted as staff/child ratio.

Group size. The number of children assigned to a lead teacher.

Hands-on activity. An activity during which children handle toys or materials.

HEW. The United States Department of Health, Education, and Welfare.

Hitting behavior. Isolated instances of one child hitting, kicking, or biting another child.

Infant. A child who is under 2 years of age.

Inservice training. Job-related learning activities for caregivers, including advice on and criticism of daily performance, on-the-job training, and formal or informal academic experience (Aaron, 1978, p. 216).

Large size. A center with an enrollment of from 60-99 children.

Lead teacher. The adult responsible for a group of children.

Lead teacher education/experience. The lead teacher's responses to the researcher's three questions: How many years of schooling have you had? How many years have you been employed in this center? Have you taken child-related courses?

Licensing. The granting by a state of a license, or permission to operate a day care facility, to a provider who has shown evidence of compliance with the state's licensing code, licensing standards, or minimum requirements for the license (Aaron, 1978, p. 216).

Medium size. A center with an enrollment of from 30-59 children.

NDCS. The National Day Care Study, completed in 1979.

Off-task behavior. A behavior category which occurs when a child's attention is not focused on required activity.

On-task behavior. A behavior category which occurs when a child's attention is focused on required activity.

Outside. An activity category during which the majority of the children are on the playground.

Small size. A center with an enrollment of from 12-29 children.

Staff/child ratio. The proportion of adults to children in the class observed.

Staff/child ratio in conjunction with group size. The measure of the number of children for each adult in the selected 4-year-old classroom and the total number of children in the classroom. Three policy recommendations made by the NDCS were "Policy A--The group size shall be less than or equal to 14 children and staff/child ratio shall equal or exceed 1:7; Policy B--Group size shall be less than or equal to 16 children and staff/child ratio shall equal or exceed 1:8; Policy C--Group size shall be less than or equal to 18 children and staff/child ratio shall equal or exceed 1:9" (Ruopp, 1979, p. 24).

Staff qualifications. The academic and employment background of the employee.

Time out. The behavior management technique of removing a misbehaving child from participating in the group.

Title XX. A federal social service program, authorized by the Social Security Act, to enable states to provide social services to public assistance recipients and other low-income persons.

Transition activity. The activity category which occurs after the majority of the children have completed a planned activity but before they have commenced with the next activity.

Uniform participation activity. An activity category during which the majority of the children are engaged in a similar activity which must be performed in a prescribed way and which does not yield a product; i.e., singing, circle time, musical chairs.

Uniform product activity. An activity category during which the majority of the children are engaged in producing a similar product; i.e., ditto sheet.

Very large center. A center with an enrollment of 100 or more children.

Wandering behavior. A behavior category which occurs when a child is in a transitional stage as he/she breaks off focus on one activity and seeks another activity for focus.

Procedures

The study focused on two basic areas: the quality of care in selected centers in the urban county as measured by certain variables seen to be indicative of that quality and the continuity of care in the day care centers operating in the urban county during a 5-year period. The procedures utilized in each of these two basic areas follow.

Procedures for the Study of Quality of Care

In order to determine the potential population of day care centers located in the urban Florida county for possible inclusion in the study, three criteria were established. These were that (a) the center must be eligible to receive Title XX funds, (b) the center must enroll a majority of Title XX eligible students, and (c) the center must have a minimum of 12 children enrolled. Accordingly, 21 centers in the urban county met the criteria of receiving Title XX funds and were considered for inclusion in the study. Three of the 21 centers were excluded because less than a majority of the children were eligible for Title XX funds, and one was excluded because only five children were enrolled. The directors of the 17 centers included in the study were contacted by telephone, and each agreed that the observer could visit a classroom in her center between the hours of 8:30 a.m. and 11:30 a.m. on a specified date. (No director was informed of the specific classroom to be visited until the observer arrived just prior to 8:30.)

The 17 centers, each enrolling a minimum of 12 children and having a majority of enrollees funded by Title XX of the Social Security Act in the urban Florida county as of January 1, 1980, were stratified according to the following size categories as determined by the number of enrollees: 100+, 60-99, 30-59, and 12-29. In each of these centers the age of the children observed was held as constant as possible by selecting the classroom for children born in 1975 for observation and data collection. When more than one classroom in a center had children born in 1975, the classroom having the greatest proportion of its enrolled children born in 1975 was selected. The choice of the 4-year-old classroom was based in part on a practical consideration, i.e., it was impossible to make observations in each classroom within the context of the study. More significantly, it was felt that the 4-year-old classroom would more accurately reflect what was going on in the center because (a) 5-year-olds often went to the public school kindergarten, (b) many parents did not enroll children until they were 4, and (c) it was thought that the 4-year-old classroom would be a reflection of what had gone on before.

The observer facilitated the discussion and reporting of the data by categorizing all activities which occurred in the classroom into six activity categories. The categories were descriptive of the event on which the majority of the children's attention was focused at any particular point in time. The first category, free choice, described any activity in which the children either individually selected the activity in which they wished to engage and/or participated in a teacher-selected activity in a manner chosen by the child. In either case, the child was not required to engage in the activity in a teacher-directed prescribed manner. Activities typically categorized as free choice included unit block play, doll house play, easel painting, and manipulative toy play. A second category of activity, uniform participation, designated those activities in which the teacher narrowly prescribed the manner in which the children were to participate and the focus of the children's attention was on an activity which did not yield a product. Activities typically categorized as uniform participation included group singing, circle time, group games, and story time. The classification of uniform product was assigned to any activity in which the majority of children participated by producing a product in a manner prescribed by the teacher. Activities involving ditto sheets, work books, and narrowly prescribed art activities were typical of those identified as uniform product. Another activity category, transition, was utilized to identify the activity of children when one scheduled activity had been completed and the next scheduled activity had not begun, and when children were involved in toileting and cleaning-up. Examples of the transition activity category would include hand-washing, forming a line, waiting for the teacher to begin a new activity, moving from one location to another or from one activity to another, and waiting for work sheets to be distributed. The activity category identified as outside activity referred to playground activities, and the activity category identified as eating referred to children's involvement in eating breakfast or a morning snack.

At 2-minute intervals each child's behavior was observed and classified into one of four behavior categories; on-task, off-task, wandering, and disruptive. Behavior classified as on-task occurred when a child was behaving in the manner required by the teacher.

Behavior described as off-task identified a child's behavior when the child's attention was focused on something other than that on which the teacher required the child to focus but when the child was not disturbing others. Typical examples of off-task behavior included a child playing with blocks at clean-up time, looking out the window when he/she was supposed to look at the blackboard, and not participating during a singing activity. The term disruptive behavior described behavior which was off-task and which also prevented other children from remaining on-task; i.e., loud talking during circle time, aggression against another child, and disconnecting the record player when others were listening to a song. The category of wandering behavior described children who had left one activity but not yet achieved focus on another activity; i.e., during free choice activity a child stops playing with blocks and wanders around the room before beginning to easel paint. Whereas each of these four behavior categories was utilized to classify children's behavior at 2-minute intervals, another measure of children's behavior was the counting of each isolated instance of one child's hitting, biting, or kicking another child. Such isolated instances were recorded as "hitting behavior."

Each of the 17 selected classrooms was visited by the investigator one time for a minimum of 160 minutes between 8:30 a.m. and 11:30 a.m. During the visit the investigator performed the following functions:

1. Observed and recorded the staff/child ratio and group size at 10:00 a.m.
2. Observed, classified, and described each activity as free choice, uniform participation, uniform product, transition, eating, or outside; and classified each behavior as being

on-task, off-task, wandering, or disruptive. This was done for each child at 2-minute intervals during the observation. Additionally, isolated instances of hitting behavior were counted as they occurred. See Appendix A for the data recording instrument used.

3. Questioned the lead teacher in each classroom concerning her education and experience. Specifically, she was asked: How many years of schooling have you had? How many years have you been employed in this center? Have you taken child-related courses?

In seven instances observation did not begin promptly at 8:30 a.m.; two of these were caused by the late arrival of the observer, one by the late arrival of the class from breakfast, and the remaining four by the director or secretary extending her conversation in the office with the observer.

The numerical data are displayed in tabular form and analyzed descriptively. The variables of staff/child ratio in conjunction with group size, lead teacher education/experience, activities and behaviors of children, as related to size, are described separately and collectively. In addition, comparisons based on each of the four size categories were made by (a) determining the means for staff/child ratio, group size, and lead teacher education/experience within each size category, and (b) ranking the centers on activities and behaviors of children and determining the mean rank within each size category.

Procedures for the Study of Center Closing

The universe for the study of the association between center size and center closing was all day care centers licensed in the urban

Florida county on January 1, 1974. The number was 278. The day care licensing records of the county were examined to obtain a list of all day care centers which were licensed on January 1, 1974, and compared to determine whether or not they were still open on January 1, 1979. After the centers had been grouped according to size, the number of centers which were licensed on January 1, 1974, and still open on January 1, 1979, was expressed as a proportion of the total number of centers licensed on January 1, 1974, in each of the five size categories.

Organization of the Remainder of the Research Report

The remainder of the study is organized into four chapters. Chapter II, following immediately, contains a review of related literature and research. The third chapter is a presentation of the data regarding the measures of quality of care and continuity of care. The fourth chapter is a discussion of the data. The final chapter contains the summary and conclusions.

CHAPTER II

REVIEW OF THE LITERATURE

The review of the literature presented herein encompasses the following: The National Day Care Study (NDCS), problems associated with definitions of quality in day care centers, relationship of program quality to center size, and relationship of continuity of care to program quality. The discussion of the NDCS is included to provide a framework for the understanding of current day care research. The discussion of the definitions and measurement of quality in day care is included to illustrate the lack of consensus regarding the components of day care which are considered indicative of quality. The discussion of the relationship of program quality to center size is intended to provide the background for understanding the present study of center size and quality. The section regarding the importance of continuity of care to the child's development is included because of its relation to center closing, a feature of the present study.

The review of the literature regarding center size and center quality was restricted to the period of 1967-1979. This time frame was selected because Prescott's original studies of center quality and size were conducted in 1967. Only literature published after January 1, 1970, was reviewed with reference to continuity of care.

A critique of the literature concludes the chapter. The critique is included to justify the study of center size and quality at a time when experts appear to have reached a consensus of opinion that large day care centers are generally of a poorer quality than day care centers of medium size.

National Day Care Study

The NDCS study, which was completed in 1978, is the most comprehensive, carefully designed, study of day care to have been undertaken. It was prepared for Day Care Services Division, Administration for Children, Youth and Families, Office of Human Development, U.S. Department of HEW, to answer major policy questions about federally subsidized day care centers and the children enrolled in them. During Phase I of the study the researchers addressed the background of federal involvement in day care, day care policy issues, the design and phases of the study, and the limitations of the study. In January, 1976, the National Day Care Study First Annual Report was published to detail the findings of Phase I (1976a) and the design of Phase II (1976b).

Phase II was a preliminary study of limited scope designed to determine those components of day care which exhibited sufficient strength to be designated as variables in the Phase III study. Because the earlier research on day care was so limited, the researchers felt it was impossible to design definitive research without the preliminary studies of Phase II. In Phase II, the variables concerned with staff/child ratio, group size, and caregiver qualifications and experience were studied. Other center characteristics studied in Phase II of the NDCS (1977) for possible inclusion in Phase III were auspices, funding, size, director professionalism, services, and curricula, as well as such exogenous information as site and community characteristics. Finally, National Day Care Study: Preliminary Findings and Their Implications (1978) was published as an interim report of the findings and implications of the third phase of the NDCS. These findings were discussed in terms of their implications for the revision of the FIDCR. Additionally, the report contained the results of two substudies, the Infant Day Care Study (conducted in 54 centers) and a Supply Study (a nationwide telephone survey of 3100 centers).

One can raise questions about the findings of the NDCS. In fact, the comments of Neugebauer, who did critique the NDCS, seem to be apt at this point. Neugebauer (June, 1979, pp. 1-3) recommended that the findings of the NDCS need careful scrutiny by policy-makers, providers, and parents. One level of analysis recommended by Neugebauer was an assessment of the face validity of the NDCS, i.e., are the outcomes associated with the variables truly indicative of quality in a center? Secondly, he recommended that the conclusions reached by the NDCS be reviewed for validity by independent researchers who would review the findings to determine whether or not they agreed with the conclusions. One panel of seven experts has reviewed the findings and conclusions of the NDCS and two of the seven members of the panel recommended that further review should be provided. The third level of analysis recommended was that a review committee start with the raw data and do a thorough reanalysis. Yet another method of validation was suggested: smaller follow-up studies should be made to confirm and enlarge the findings of the NDCS.

Problems Associated With Definitions of Quality in Day Care Centers

There is no consensus among experts regarding either the definition of appropriate goals for day care, or the definition of quality in day care.

Oyemeden and Chargovia (1977, p. 103) identified the following three models of day care relative to goals: custodial, stressing physical care; nursery school, stressing learning and social skills; and compensatory education, based on the assumption that the home environment is deprived, and stressing cognitive skills.

The variations in day care program objectives identified by Ricciuti (1977b, p. 72) ranged from day care as a good substitute for home care, to day care as a remedial experience, and to day care as a setting for accelerating normal development through a cognitive emphasis. In Ricciuti's own opinion (1977a), specific features indigenous to quality child care should include:

1. Caregiver/child ratios.
2. Continuity of caregivers.
3. Staff qualifications.
4. Provision for health, nutrition, and safety.
5. Nature of infants' daily experience.
6. Consistency between day care and home.
7. Parental involvement and participation.
8. Support of parental roles and family service.
9. Age of initial entry into day care.
10. Amount of day care experience. (p. 28)

If Ricciuti were to design an instrument for the measurement of day care quality based upon his own listing of the factors indigenous to quality care, 30% of the measurements would relate to the child's home and family rather than to the center.

In the NDCS (1978, p. 2), three distinct philosophies were identified about what day care should accomplish. Some day care specialists defined quality in terms of educational, social, medical, nutritional, and physical services provided children; some were concerned with classroom climate as reflected in caregiver behavior, caregiver stability, social structure, warm and stimulating interaction patterns, and psychological health. Still others defined quality in terms of the changes a child evidences as a result of the day care experience. Instruments designed to assess quality based on these three definitions would vary from input measures for the first, to classroom interaction measures for the second, and to outcome measures for the third.

White, Day, Freeman, Hartman, and Messanger (1973, pp. 209-210) identified the three goals of day care as being the provision of custodial care, the provision of enriching experiences, and the maximization of a particular aspect of development. Butler's 1970 eclectic interpretation of a quality center as a "center which provided everything the child should get in a good home plus what he should get in a good school" (p. 61), combined the goals of two types of day care programs.

Due to the diversity of definitions of center quality, across-the-board program assessments present problems of generalizability to programs having diverse goals. Panetta (1975, pp. 37-48) attempted to solve this problem of generalizability by using questionnaires with parents, teachers, and directors who utilized or worked in day care centers. The questionnaire was designed to determine the respondents' definition of the characteristics of a quality center. An evaluation was then made in terms of the degree of implementation of the identified characteristics, the process behaviors of staff and children, and the outcome measures.

Evaluations of quality in day care programs are confounded not only by the diverse definitions of quality and by the relevance of quality measures to particular definitions of quality, but also by the lack of precision in measurement of input, process, and output in day care. This problem was described in 1973 (White et al.) as follows:

> Existing instruments are, relatively, more adequate for assessing effects on children in early school; next most adequate in assessing pre school effects; and least well developed for assessing day care effects in the 0-3 age group. However our present capacity to assess the effectiveness of intervention anywhere is, at best, argumentative. Although there is much interest in noncognitive measures, a review of a large number of noncognitive measures show all presently deficient on basic issues of norming, reliability, and validity. (p. 259)

Two widely quoted studies of center quality were conducted under the leadership of Prescott (Prescott & Jones, 1967; Prescott & Jones, 1972). Prescott's research was discussed in the 1976 report of the NDCS as follows:

> While not national in scope, some of the most important seminal research in day care has been carried out by Elizabeth Prescott (Research Director of Pacific Oaks College and member of the NDCS Advisory Committee). . . . Prescott has also done the only extensive work on analyzing . . . different types of care settings. (pp. 63-64)

Because her research has been so often quoted, it is well to examine Prescott's studies from the framework of her definition of quality in day care. Her definition of quality has remained consistent in all of her publications since 1967 when she stated that "Our definition of quality care in a full day program has been that it should substitute for a good home" (Prescott & Jones, p. 53). This definition of quality care was amplified later in the following statement:

> Even assuming the validity of this hypothesis, group day care isn't all that ideal. Under the best of circumstances it is likely to be a stressful environment for a young child. . . . The expansion of mediocre group day care often is justified by statements about the terrible home conditions of the children to be served. If the home is bad, the child may indeed need the experiences which would be provided by a good home; however, many of these experiences are difficult to provide in a group care. There has been little thought given to the important differences between group care and a home environment. Group care uses the nursery school, not the home, as its model. We see this model as different in significant ways from the model of a good home, and suggest that a little nursery school goes a long way. (Prescott & Jones, 1970, p. 142)

Prescott and Jones (1971, pp. 54-58) summarized the following assets which are found in a quality home, but are generally relatively lacking in day care centers, resulting in poor quality of day care: (a) freedom to discover a sense of self, (b) cross-age contacts, (c) male role models, (d) freedom from scheduling, (e) freedom of choice in activities, (f) freedom to test the limits of one's skills, and (g) freedom to explore the natural environment. Prescott stated that the working mother who desires quality care should be given the option of placing her child in family day care or in half-day nursery school with afternoon care in a family setting.

Prescott (1974, pp. 1-3) addressed the 51st Annual Meeting of the American Orthopsychiatric Association on the topic: "Is Day Care as Good as a Good Home?" In her address she evaluated the quality of various models of day care in terms of their similarity to a good home along certain dimensions; i.e., the type of adult input received by the child, the "softness" of the physical environment, the number of people in the setting, and the manner in which a child made a transition from one activity to another.

Prescott and David (1977), in a discussion of the impact of the physical environment on day care, made the following statement:

> The authors observe that the physical environment of a day care center often resembles a school environment and warn that day care has a purpose that differs significantly from that of the schools. (p. 118)

Throughout the preceding references to Prescott's definitions of quality, it is evident that she consistently maintained that a good day care center was one which resembled a good home. She contended that, "In assessing quality it is also possible to look for conditions which are positively or negatively associated with quality as defined" (Prescott, 1972, p. 4). Prescott designed instruments for use in observing the interactions and the environment in day care centers. These instruments were designed to be sensitive to those center conditions positively associated with conditions to be found in a good home. In her studies of day care centers, Prescott clearly detailed the definition of quality to which her findings were relative.

Research concerning center quality was detailed in The Final Report of the National Day Care Study: Children at the Center (Ruopp, 1979) and in Final Report of the National Day Care Study: Children at the Center. Summary Findings and Their Implications (Ruopp, Travers, Glantz, & Coelen, 1979). The authors reported that center quality in 67 selected centers had been measured by observing staff and children in the classrooms and by administering the Preschool Inventory and the Peabody Picture Vocabulary Test. Systematic observations were utilized to determine how much time the staff spent in close interaction with the children, in maintaining order, in administrative tasks, and in detailed observations. Observations of the child were utilized to determine how much of a child's time was spent in a group, independently, aimlessly, and in verbal interaction. The conclusions of the study were not drawn relative to the answers to these individual questions but rather to the convergence of the totality of the findings. The following regulatable characteristics were found to be predictive of this composite view of quality:

> Group size shows strong and consistent relationships to NDCS measures of quality. . . . Across all study sites, smaller groups are consistently associated with better care, more socially active children and higher gains on two developmental tests. (Ruopp, 1979, p. 2)
>
> Caregiver/child ratio shows a slight relationship to NDCS measures of quality. . . . Caregiver/child ratio, within the policy-relevant range of 1:5 to 1:10, shows some relationships to measures of caregiver and child behavior, although the results are not strong or consistent. Ratio is not related to child test score gains. (Ruopp, 1979, p. 2)
>
> Child-related education/training for caregivers with education/training relevant to young children deliver better care with somewhat superior developmental effects for children. (Ruopp, 1979, p. 3)
>
> Experience and formal education show no important relationship to any NDCS measures of quality. . . . Neither total years of day care experience, nor total years of formal education, nor degrees or certificates unrelated to child care were systematically associated with caregiver or child behavior or child test score gains. (Ruopp, 1979, p. 3)

Based upon these findings, Ruopp (1979, p. 24) recommended that one of three policies be adopted regarding the inextricably related staff/child ratio and group size in a single classroom. The three policy suggestions were as follows:

> Policy A: Group size shall be less than or equal to 14 children and staff/child ratio shall equal or exceed 1:7.

> Policy B: Group size shall be less than or equal to 16 children and staff/child ratio shall equal or exceed 1:8.
>
> Policy C: Group size shall be less than or equal to 18 children and staff/child ratio shall equal or exceed 1:9. (p. 24)

Additionally, based upon these findings, Ruopp (1979) made the following recommendation:

> Persons providing direct care for preschool children should have participated in a specialized program of child-related education/training. (p. 24)

The results of the NDCS (Ruopp et al., 1979, pp. 98-102) indicated that formal education per se showed only a few scattered relationships to child and caregiver behavior and showed no relationship to outcome measures. However, child-related education, i.e., day care, early childhood education, child psychology, and special education correlated with higher outcome measures and with better patterns of child and staff activities. It was the teacher with child-related education or training who engaged in the most social interaction with children and whose children were more compliant, more cooperative, exhibited higher on-task behavior and higher test score gains. It was not determined from the study whether child-related education/training was effective for staff with little formal education. The recommendation that caregivers must have child-related education/training was made because the data clearly showed that day care experience and/or education per se was not equivalent to child-related education/training.

The recommendations of the NDCS researchers were somewhat vague. Therefore, the recommendations they made left room for legislators to temper their decisions on the revision of the FIDCR with a realistic assessment of cost versus benefit, knowing that benefits appear to be greatest for children when both staff/child ratio, group size, and staff qualifications are set at optimum levels.

Relationship of Center Size to Program Quality

References have been made in the literature to the relationship between large size and poor quality in day care centers (Caldwell, 1973, p. 201; Panetta, 1975, p. 26; Robinson & Robinson, 1975, p. 218; Ruopp, O'Farrell, Warner, Rowe, & Freedman, 1973, p. 122). All of these references in the literature referred to data obtained in three studies (Prescott & Jones, 1967; Prescott & Jones, 1972; Fitzsimmons & Rowe, 1971). As previously mentioned, in Volumes I and II of the NDCS First Annual Report (1976a & 1976b), center size was listed as a variable which might have significant impact on center quality and which should be studied for potential impact. However, size was not one of the variables included in the final design of the study. Therefore, in the present section the review of the research and literature on the relationship of center size to center quality is limited to findings and opinions expressed by Prescott and Jones, Ftizsimmons and Rowe, Robinson and Robinson, Barker, and Drezek.

In the first of the three studies (Prescott & Jones, 1967), the authors examined 50 randomly selected day care centers in the Los Angeles area to evaluate the effectiveness of the centers and to find factors predictive of differences in programs. Teachers in each center were observed daily for four 20-minute periods for 10 days. Prescott and Jones concluded that the size of the center adversely influenced the behavior of teachers, and thereby reduced center quality. They also found that large programs generally had a more professionally trained teaching and administrative staff, more elaborate and spacious areas, and program formats permitting more free play rather than teacher-directed activities. These factors are often seen as associated with a quality program with positive interaction patterns, but Prescott and Jones found just the opposite relationship--more teacher direction, more restriction, and less encouragement. They stated that the element of large size in a center makes the following restrictions necessary:

> The environment provided by the larger center is one in which the freedom and flexibility of children and teachers is severely restricted. In a large center it is difficult to avoid schedules in which groups of children and their teachers simply must arrive at expected activities on time. The first group assigned to a toilet room cannot be late without making other groups late in turn; snack time must end in time for lunch procedures to begin, etc. Furthermore, the large amount of space *per se* and the large numbers of children apparently act to impede freedom of movement and freedom of choice for children and staff. Large size creates a peculiar set of problems which require that goals of "meeting the schedule" be given priority. These goals frequently have little or nothing to do with the needs of individual children, and often they directly interfere with meeting these needs. (pp. 160-161)

A second study of day care center quality relative to center size was conducted by Prescott and Jones in 1972. The authors examined four programs sponsored by boards of education in California and found that large programs had significantly higher staff turnover than programs of small or medium size. Becuase continuity of care is assumed to be important to a child's development, high staff turnover was seen as having a negative impact on program quality. Prescott speculated that this higher staff turnover was caused by a lack of staff satisfaction with programs where the atmosphere was impersonal and where opportunities for staff participation in decision-making was limited.

The third study of day care center size relative to quality was a descriptive study by Fitzsimmons and Rowe (1971). They conducted a study from a list of 20 programs (13 centers and 7 home care systems) selected from a list of 132 programs nominated as "quality" centers by the Office of Economic Opportunity, HEW, National Federation of Settlements and Neighborhood Centers, Department of Labor, Child Welfare League, Urban League, Day Care and Child Development Council, and leading individuals in the field of child care. The authors looked for quality in four areas: child development, job development in training, health services, and general social services. Of the initially nominated 132 centers, 42 were selected for on-site visits. These 42 were chosen because they represented various ethnic, cultural, and economic backgrounds from all parts of the country, as well as having high quality in the four specified areas. The final selection of the 20 programs for the study was based on an overall project quality, presence and variety of quality program elements, and coverage of "special case" situations. In these 20 programs, interviews were held with teachers, administrators, and parents, and observations were made in classrooms. An analysis of the 13 centers of the study showed that 2 met Prescott's definition of a small center (13-29 enrollees), 5 met the definition of a medium size center (30-59), and 6 met the definition of a large center (60 and above). Of the 6 centers, 3 were very large, having enrollments of 105, 118, and 197. Fitzsimmons and Rowe (1971) included the following comments in their findings:

> Larger centers have more difficulty in maintaining warmth. . . . Across the board, larger centers cost a little less per child. . . . Larger centers seem to find it harder to provide quality child care even when they can maintain favorable staff/child ratios . . . . It may be that directors should not have to direct too large a program. Even a limited program, to be really successful, needs large inputs of time, effort, energy, and spirit on the part of its director. . . . Data indicate that on balance, smaller centers and well-funded home care are most attractive from the point of view of quality. (pp. 7-10)

Robinson and Robinson (1975) studied day care centers in 10 industrialized nations: France, Great Britain, Hungary, Yugoslavia, Israel, Poland, Denmark, Sweden, Russia, and the United States. As indicated in the following list of countries paired with their recommended number of pupils (7 of the 10 countries studied had made official determinations of this question) the average size of urban preschool centers was almost everywhere higher than that unofficially recommended in the United States.

France	150-320
Hungary	120
Israel	50-100
Poland	30-120
Sweden	25
Russia	180
Yugoslavia	100-120 (Maximum 160)
	(p. 31a)

The justifications given for the largeness of the centers were (a) economies of building, (b) economies of operations, (c) economies of the use of nonclassroom professional staff (physician, specialized teachers), and (d) the likelihood in a large center of having a nonteacher director and administrative assistants (p. 31). Smaller centers were preferred for their convenience to children's homes, their presumed closer relationships with parents, and their intimacy. In no country had an empirical study been made, other than in the United States, of the effects of center size. Very good programs were found in these countries in spite of large center size and lower ratio of teachers to children.

Barker (1963, pp. 34-35) studied the environment as it related to the regulation of individuals and concluded that behavior settings having greater numbers of people than are necessary for proper functioning must utilize control mechanisms to promote conformity among the inhabitants. Gump and Barker (1964) related size to high school settings and concluded that

> As schools get larger and settings inevitably become more heavily populated more of the students are less needed, they become superfluous, redundant. . . . a school should be sufficiently small that all of its students are needed for its enterprises. (p. 202)

Drezek (1975, p. 26) made reference to a study by Means in which Means reported on her study of 126 centers, over half of which had enrolled less than 30 children and only 18 of which had enrolled from 71-200 children. Her findings indicated that the best overall care was provided in centers with 31-70 children and in centers receiving subsidies.

Relationship of Continuity of Care to Program Quality

A basic question investigated in the study reported herein focused on continuity of care in centers of different size. Consensus existed among the authorities that the caregiving situation should be stable from day to day (Clarke-Stewart, 1977, p. 109; Fein & Clarke-Stewart, 1973, p. 46; Provence, Naylor, & Patterson, 1977, p. 83; Ruopp et al., 1973, p. 104); this provides the basic argument for continuity in the day care center being important to quality.

This need for continuity was summarized by Clarke-Stewart (1977) as follows:

> Research on attachment indicates that children at home thrive when there are a few adults who care for them continuously for a substantial period of time. Temporal stability is a criterion that should be satisfied by day care as well as family care. The child should be placed in a single day care setting for a relatively long time, where staff members are relatively stable, and continuous care by the same caregiver can be provided. (p. 108)

Provence et al. (1977) related continuity to learning and adaptation in the following statement:

> An environment in which consistency and repetition are conspicuous elements is quite important in organizing and supporting a child's development. Consistency and repetition help to create within the infant physical and mental states that facilitate learning and adaptation. (p. 85)

Fein and Clarke-Stewart (1973) related the importance of continuity of care to the child's relationship with others as follows:

> During the first years of life the child acquires the capacity to form strong ties with other people. A critical issue undercutting all the living experiences of children concerns the guarantee that every child will be provided with sufficient continuity and consistency in his human environment so that he can establish stable and predictable relationships with other human beings. (p. 46)

Riccuiti (1973, p. 73) conducted a study concerning the development of recognition and attachment to a primary caregiver. He found (a) that more positive reactions to a familiar caregiver than to a stranger became clearly differentiated shortly after 7 months of age; (b) that infants of 18-24 months evidenced little or no distress separation from mothers when left with a familiar caregiver, but showed negative reactions to being left with a stranger; (c) that infants' distress reactions to separation from the familiar caregiver followed the developmental pattern similar to that of infants' separation from the mother.

Wilcox, as cited in Aaron (1978, p. 210), conducted a study in which a comparison was made of two groups of infants (age 6 months to 6 years). In the first group each caregiver was assigned to specific infants, whereas in the second group all caregivers were assigned simultaneously to all infants. An observation check list was utilized to show that in both groups nearly 50% of infant interactions were with a specific adult. The tendency to form a primary caregiver relationship in both groups supports the proposition that continuity of care is an important aspect of day care.

Several researchers went further than to plead for a general continuity of caregivers. Clarke-Stewart (1977, p. 109) recommended that, for children under 2 years of age, caregivers should be assigned to individual children rather than to particular tasks.

Riccuiti (1977, p. 28) stated that even without federal regulations, caregivers and providers have accommodated schedules to the need of infants for continuity. This was evidenced by the discovery that infant and toddler caregivers worked three hours more per week than caregivers of 3- and 4-year-olds. The relation between longer hours and staff "burnout" is an unfortunate tradeoff which has not been assessed. Therefore, policymakers have no guidelines to follow in selecting a balance between long hours and burnout.

Still on the point, Ricciuti (1977) also noted the following:

> Caregiving tasks should be assigned so that each infant is cared for by only one or two people for

> extended periods of time. Use of volunteers should be arranged in ways that don't jeopardize stability and continuity of care. (p. 75)

Given the fact that there is so much importance placed on continuity of care, authorities have urged that conditions be made attractive to encourage caregivers to remain in their position. Accordingly, different authorities have offered different suggestions to encourage caregivers to remain in their positions. Among the suggestions offered are the following:

1. Reimbursement rates to centers should be set at a high enough level to permit adequate salaries for caregivers (Fein & Clarke-Stewart, 1973, p. 31).
2. Working conditions should be improved (Fein & Clarke-Stewart, 1973, p. 31).
3. Government guidelines for day care eligibility should not be so rigid that mothers withdraw their children from day care when their subsidy ends. Sliding fee scales should be established (Aaron, 1978, p. 90).
4. An educational effort should be undertaken to inform parents of the importance of continuity of care (Aaron, 1978, p. 90).
5. Child caregivers should be given higher status, reflected in the respect and admiration of the community (Fein & Clarke-Stewart, 1973, p. 70).

According to Aaron (1978, p. 89), the National Day Care Supply Study of 3100 centers categorized 50% of the centers surveyed as having low turnover (0 to 10%), 20% of the centers as having moderate turnover (21 to 40%), and 30% as having high turnover (over 40%). These figures reflect numbers of positions that changed during a year, but not how many times one position may have changed. The mean rate of turnover was found to be 15%.

Fein and Clarke-Stewart (1973, p. 31) stated that it was unfortunate that no national figures existed for turnover rates, but that the scant information available in a study by Ruderman made in 1968 suggested that stability in day care employment was higher than in nursery school employment. The median employment was found to be three years for day care and two years for nursery.

It was reported in NDCS Preliminary Findings and Their Implications (1978) that in 2,501 operating centers studied in the NDCS supply study, the median number of years centers had been open was 5.4. The mean was 7.7, and the standard deviation was 8.0. Of the 2,501 operating centers, 16.7% had been open for from 1 to 3 years, 28.9% from 6 to 10 years, and 10.6% more than 15 years (p. 89). From these statistics it was concluded that day care centers were very stable programs and that only a small fraction of children would be forced to seek alternative arrangements due to center closing and it was suspected that such stability was a positive benefit of day care centers as opposed to family and group day care homes (p. 30). However, this research did not differentiate between various sizes of day care centers in the analysis of center stability.

A review of the foregoing studies and opinions leads to the obvious conclusion that most of the focus has been on the continuity of caregivers in a center. No literature has been cited relative to the opening and closing of centers as related to center size--the focus of the study reported herein. However, it seems obvious that the closing of the center itself reduces the contintuity of care simply because if there is no center there can be no caregiver who remains in a continuous place. Therefore, it is important not only to determine if caregivers remain in place, but it is also important to determine whether or not they have the opportunity to remain in place as afforded by the continuity of the center.

Critique of the Literature

Opinions regarding the relationship between day care center size and quality have been shaped by the writings of Prescott and Jones and Fitzsimmons and Rowe, who found that large centers were likely to be of a lower quality than centers of medium size.

Given Prescott's definition of quality day care and her measurement of quality in terms of that definition, it is evident that her findings are limited in generalizability to day care programs operating within the framework of a similar definition of quality. Problems do not arise from Prescott's work, but rather from the tendency of those who review and comment upon her work to generalize her findings to all types of day care programs. The consensus which can be found in the literature concerning the relationship between large center size and poor quality is therefore indicative of improperly generalizing the findings of Prescott (who defined center goals and measured center quality in terms of the center's similarity to a good home) to all day care centers regardless of the terms in which their goals were defined. For example, a highly structured compensatory education program which met its defined goals could not be designated a quality program in terms of Prescott's definition. Additionally, a large center which inevitably must have schedules and restrictions would not be likely to be termed "quality" when assessed with Prescott's instruments--instruments which assess schedules and restrictions as negatively related to a good home and a good center. This improper generalizing of Prescott's findings to all day care programs yields an inaccurate data base for decision-making.

The lack of consensus regarding a definition of quality in day care also confounds the findings of Fitzsimmons and Rowe (1970) regarding the relationship of center size to quality. Centers were selected after being nominated by experts in the field as being of high quality, and, additionally, were determined by Fitzsimmons and Rowe to be of high quality (as determined by a preliminary on-site visit). The statement made by Fitzsimmons and Rowe that "Larger centers seem to find it harder to provide quality child care even when they can maintain favorable staff/child ratio" (p. 8) evidences unwarranted confidence in the reliability of the instrument utilized to detect small differences in quality among 13 designated quality centers. The unique biases regarding a definition of "quality" held by the designer of the instrument used and/or held by the observer, would necessarily influence the ranking of the centers in their order of quality. The small size of the samples selected for this study does not lead to confidence in the findings. Because staff/child ratio and group size have been found to be strongly associated with center quality, a sample of only 13 centers with a wide range of staff/child ratios (1:2.2-1:9.4) is not a large enough sample to make significant findings concerning size and quality when staff/child ratios are not held constant.

Researchers of continuity of care have adequately dealt with the incidence of staff turnover. Concerning another factor which reduces continuity of care, the closing of day care centers, no studies were found in terms of center size. Because center closing disrupts the continuity of care for every child enrolled, it is important to determine whether or not there is an association between center size and center closing.

It was anticipated that the relationship between center size and quality would have been studied in the NDCS, but this was not included in the final design of the study. Even when definitive research has been conducted on programs having various goals, one must be careful to generalize findings only to those programs for which generalization is appropriate.

CHAPTER III

PRESENTATION OF THE DATA

In the first five sections of the present chapter, data are presented relative to the measures of quality of care in relation to center size--the focus of the first question. Specifically, in the first section the basic data are presented relative to staff/child ratio in conjunction with group size, lead teacher education/experience, and classroom activities and behaviors of children for the four centers enrolling 100+ children. In sections two, three, and four, like data are presented for centers enrolling 60-99, 30-59, and 12-29 children, respectively. Appendix B contains the narrative report of the on-site visits which formed the basis for the categorized data presented in sections one through four. For a detailed description of what actually occurred in each center (during 160 minutes of observation), the reviewer is invited to see Appendix B. In the fifth section, the comparisons among the four size categories relative to the aforementioned quality of care variables are presented. In the sixth and final section, data relative to the January 1, 1979, status of the centers licensed in the urban county on January 1, 1974, are presented. The relative proportion of centers in each size category which remained open during the entire period provides an indication of the continuity of care provided in the urban county when day care centers are categorized according to size.

Measures of Quality of Care in Centers Enrolling 100+ Children

As indicated, there were four centers enrolling 100+ children among the 17 centers in which classrooms were studied. In the paragraphs following, each of these centers, identified alphamerically, is described in terms of staff/child ratio and group size, lead teacher education/experience, and observed activities and behaviors of children in the classrooms.

Staff/Child Ratio and Group Size

As can be noted from Table 1, in the 4 centers enrolling 100+ children, the group size ranged from 11 to 21 children. In conjunction with these group sizes, the staff/child ratios were from a high of 1 adult for each 10.50 children to a low of 1 adult for each 4.75 children. However, it should be noted in looking at these ratios in conjunction with group size that, in this case, the largest group had the largest number of children to each adult present, but the smallest group did not have the smallest number of children to each adult present. The group that was next to the largest did. It should further be noted that two groups exceeded the maximum size recommended by the NDCS (18) and one center exceeded the number of children for each adult recommended in the NDCS (9).

Table 1

Staff/Child Ratio and Group Size at 10:00 a.m. on the Date of the On-Site Visit for Each of the Selected Classrooms in Each of the Centers Enrolling 100+ Children

Center	Staff/Child Ratio	Group Size
A	1: 4.75	19
B	1:10.50	21
C	1: 5.50	11
D	1: 5.33	16

Lead Teacher Education/Experience

As can be seen from Table 2, there was a very narrow range in terms of the years of schooling of the lead teachers and also a fairly narrow range in terms of their number of years in the center. All had taken child-related courses. As may be recalled, these are the three measures of lead teacher education/experience utilized in the study.

Table 2

Education/Experience of the Lead Teacher of Each Selected Classroom in Each Center Enrolling 100+ Children

Center	Number of Years of Schooling	Number of Years in Center	Had Child-Related Courses
A	13	3	Yes
B	14	4	Yes
C	13	6	Yes
D	13	2	Yes

Observed Classroom Activities and Behaviors of Children

As can be noted in Table 3, within the six activity categories there was a wide variation among the centers in terms of the activity categories in which the children were engaged. To illustrate the point, in Center A, 21.11% of the time was spent outside, whereas in the other three centers rain prevented children from going outside. In Centers B, C, and D, respectively, 72.30%, 89.00%, and 77.05% of the total time was spent in free choice combined with uniform participation, whereas in Center A this dropped to 48.82%. Within these categories it can be seen that on-task was the predominant behavior and it never fell below 89.09% or exceeded 98.87%.

As can be seen from Table 4, another way of examining the behavior of the children is to examine the total behavior regardless of the category of the activity in which the children were engaged. On-task behavior was the dominant behavior engaged in, even though there was a variation from 94.57% to 97.55%. The next most common behavior was off-task, and this was followed by very modest percentages of wandering and disruptive behavior. In addition to the behaviors shown by the categories in Table 4, the number of isolated instances of one child hitting, biting, or kicking another was recorded as "hitting." In Center B, there were no instances of hitting behavior; in Center A, there was only 1 instance; and in Centers C and D, there were 9 and 6 instances, respectively.

Table 3

Percent of Time Spent in Each Activity Category and Each Behavior Category Within the Activity During the Minimum of 160 Minutes of Observation in the Selected Classroom of Each Center Enrolling 100+ Children

Activity Category	Behavior Category	Center A	Center B	Center C	Center D
Free Choice		27.22	29.37	38.88	31.17
	On-task	98.87	94.56	96.28	97.81
	Off-task	0	0	1.35	1.81
	Wandering	0.89	5.43	1.85	0
	Disruptive	0.22	0	0.50	0.36
Uniform Participation		21.66	42.93	51.11	45.88
	On-task	96.91	94.73	94.30	95.77
	Off-task	1.54	4.69	3.41	4.22
	Wandering	0.61	0.18	0	0
	Disruptive	0.61	0.37	2.27	0
Uniform Product		23.88	10.16	0	12.35
	On-task	96.49	97.22	0	98.48
	Off-task	1.50	1.38	0	1.51
	Wandering	1.25	0.69	0	0
	Disruptive	0.75	0.69	0	0
Eating		0	0	0	4.70
	On-task	0	0	0	100.00
	Off-task	0	0	0	0
	Wandering	0	0	0	0
	Disruptive	0	0	0	0
Transition		6.11	15.81	10.00	5.88
	On-task	96.96	93.93	91.11	89.09
	Off-task	0.75	4.54	7.69	10.90
	Wandering	1.51	1.51	1.48	0
	Disruptive	0.75	0	0	0
Outside		21.11	*	*	*

*Rain curtailed outside play.

Table 4

Percent of Time Spent in Each Behavior Category Regardless of Activity During the Minimum of 160 Minutes of Observation in the Selected Classroom of Each Center Enrolling 100+ Children

Center	On-Task	Off-Task	Wandering	Disruptive
A	97.55	0.92	0.99	0.53
B	96.57	3.31	0	0.11
C	94.76	2.99	0.80	1.43
D	94.60	2.98	1.98	0.22

Measures of Quality of Care in Centers Enrolling 60-99 Children

There were five centers enrolling 60-99 pupils among the 17 centers in which classrooms were studied. In the paragraphs following, each of these centers, identified alphamerically, is described in terms of staff/child ratio and group size, lead teacher education/experience, and observed activities and behaviors of children in the classrooms.

Staff/Child Ratio and Group Size

As can be seen from Table 5, in the five centers enrolling 60-99 children the group size ranged from 9 to 21 children and the staff/child ratio ranged from 1 adult for every 3.50 children to 1 adult for every 9 children. No relationship was found across centers between staff/child ratio and group size; however, all centers met the most lenient recommendation of the NDCS regarding staff/child ratio (1:9) and one center did not meet the most lenient recommendation regarding group size (18).

Table 5

Staff/Child Ratio and Group Size at 10:00 a.m. on the Date of the On-Site Visit for Each of the Selected Classrooms in Each of the Centers Enrolling 60-99 Children

Center	Staff/Child Ratio	Group Size
E	1:9.00	9
F	1:9.00	9
G	1:3.50	21
H	1:9.00	18
I	1:6.50	13

Lead Teacher Education/Experience

As shown in Table 6, there was a variation in terms of years of schooling of lead teachers, ranging from 11 to 16 years. The number of years the lead teacher had been employed in the center was one or less in all but one center. All lead teachers had taken child-related courses.

Table 6

Education/Experience of the Lead Teacher of Each Selected Classroom in Each Center Enrolling 60-99 Children

Center	Number of Years of Schooling	Number of Years in Center	Had Child-Related Courses
E	16	0	Yes
F	16	3	Yes
G	15	1	Yes
H	11	1	Yes
I	14	0	Yes

Observed Classroom Activities and Behaviors of Children

As indicated in Table 7, within the six activity categories there was a wide variation among the centers in terms of the activities in which the children were engaged. Specifically, whereas two centers allotted no time to free choice activities, in the other centers free choice ranged up to a high of 31.11% of the total time. When the categories of free choice and uniform participation were combined, the total time involved ranged from 30.00% to 62.22%. The percent of time spent in transitions ranged from 18.88% to 44.37%. Within these categories, on-task was the predominant behavior, ranging from 52.23% in one center during transition activities to 100% in two centers while children were eating. It should be noted that, except during eating activities, only in one instance and in one center did on-task behavior exceed 90.00%.

As can be seen from Table 8, the most frequent behavior was on-task, ranging from a low of 66.66% to a high of 87.50%. The next most frequent behavior was off-task, followed by disruptive behavior, and a modest percent of wandering behavior. In addition, the number of isolated instances of one child hitting, biting, or kicking another was recorded as "hitting." In Center H, 7 instances of hitting were recorded, and in Centers E, F, G, and I the number of instances of hitting was recorded as 11, 19, 24, and 29, respectively.

Table 7

Percent of Time Spent in Each Activity Category and Each Behavior Category Within the Activity During the Minimum of 160 Minutes of Observation in the Selected Classroom of Each Center Enrolling 60-99 Children

Activity Category	Behavior Category	Center E	Center F	Center G	Center H	Center I
Free Choice		10.00	15.00	0	0	31.11
	On-task	81.94	86.11	0	0	89.06
	Off-task	13.88	6.48	0	0	0.52
	Wandering	4.16	4.62	0	0	4.68
	Disruptive	0	2.77	0	0	5.72
Uniform Participation		20.00	47.22	34.37	43.91	28.88
	On-task	70.50	85.85	89.45	69.26	85.99
	Off-task	25.17	11.11	9.52	29.43	10.74
	Wandering	0	0.50	0.85	0	0
	Disruptive	4.31	2.52	0.34	0.81	3.25
Uniform Product		21.25	2.77	17.50	22.36	0
	On-task	75.16	72.22	89.09	92.37	0
	Off-task	24.16	0	11.22	7.29	0
	Wandering	0.67	22.22	0	0	0
	Disruptive	0	5.55	0.68	0.34	0
Eating		0	0	3.75	0	3.33
	On-task	0	0	100.00	0	100.00
	Off-task	0	0	0	0	0
	Wandering	0	0	0	0	0
	Disruptive	0	0	0	0	0
Transition		30.00	26.11	44.37	33.78	18.88
	On-task	52.23	77.54	85.75	86.02	67.58
	Off-task	44.77	20.33	13.98	13.98	30.76
	Wandering	0	0.42	0	0	0.54
	Disruptive	2.98	1.69	0.26	0	1.09
Outside		18.75	8.88	0	15.90	17.77

Table 8

Percent of Time Spent in Each Behavior Category Regardless of Activity During the Minimum of 160 Minutes of Observation in the Selected Classroom of Each Center Enrolling 60-99 Children

Center	On-Task	Off-Task	Wandering	Disruptive
E	66.66	30.48	0.71	2.13
F	82.98	13.06	1.58	2.37
G	87.50	11.87	0.30	0.36
H	79.17	20.33	0	0.48
I	84.21	9.97	2.08	3.72

Measures of Quality of Care in Centers Enrolling 30-59 Children

There were five centers enrolling 30-59 pupils. In the paragraphs following, each is described in terms of staff/child ratio and group size, lead teacher education/experience, and observed activities and behaviors of children in the classrooms.

Staff/Child Ratio and Group Size

As can be noted from Table 9, in the 5 centers enrolling 30-59 children, 3 centers had a group size of 8, 1 had a group size of 9, and the remaining center had a group size of 18. The center having the largest groups size also had the largest number of children for each adult. However, in the centers with a group size of 8 or 9 children, the staff/child ratio ranged from 1:4 to 1:8, indicating no consistent relationship between the size of the group and the staff/child ratio within the group. It should be further noted that in all five centers the group size and staff/child ratio fell within at least the most lenient standards recommended in the NDCS (group size 18, staff/child ratio 1:9).

Table 9

Staff/Child Ratio and Group Size at 10:00 a.m. on the Date of the On-Site Visit for Each of the Selected Classrooms in Each of the Centers Enrolling 30-59 Children

Center	Staff/Child Ratio	Group Size
J	1:8.00	8
K	1:9.00	18
L	1:8.00	8
M	1:4.00	8
N	1:4.50	9

Lead Teacher Education/Experience

As can be seen from Table 10, there was a wide range in terms of the years of education of the lead teachers and a range of five years in terms of the number of years lead teachers had been employed in the centers. In all centers, the lead teacher had taken child-related courses.

Table 10

Education/Experience of the Lead Teacher of Each Selected Classroom in Each Center Enrolling 30-59 Children

Center	Number of Years of Schooling	Number of Years in Center	Had Child-Related Courses
J	12	0	Yes
K	17	5	Yes
L	14	1	Yes
M	11	5	Yes
N	14	1	Yes

Observed Classroom Activities and Behaviors of Children

As can be noted in Table 11, there was wide variation among the centers in terms of the activity categories in which the children were engaged. Time spent in free choice ranged from a low of 0% to a high of 33.33%; in Center L the percent of time spent in uniform participation was 33.33%, whereas in Center M it was 69.44%. When combined, the total time spent in uniform participation and free choice ranged from 51.66% to 69.44%. Within the activity categories it can be seen that on-task was the predominant behavior, ranging from a low of 78.94% to a high of 100%.

As can be seen from Table 12, children's behavior may also be examined during the entire observation period without reference to the activity in which the children were engaged. On-task behavior was the dominant behavior engaged in and ranged from 88.30% to 95.58% of the total behaviors. The next most common behavior was off-task, followed by disruptive behaviors which reached 5.28% in one center.

Table 11

Percent of Time Spent in Each Activity Category and Each Behavior Category Within the Activity During the Minimum of 160 Minutes of Observation in the Selected Classroom of Each Center Enrolling 30-59 Children

Activity Category	Behavior Category	Center J	Center K	Center L	Center M	Center N
Free Choice		9.44	16.11	33.33	0	13.88
	On-task	93.05	96.55	80.85	0	96.26
	Off-task	1.38	0	3.44	0	0.93
	Wandering	1.38	3.44	6.89	0	0
	Disruptive	4.16	0	8.42	0	2.80
Uniform Participation		42.22	37.77	33.33	69.44	51.66
	On-task	96.95	94.61	94.19	91.60	93.09
	Off-task	3.04	5.38	2.67	7.03	5.71
	Wandering	0	0	0	0	1.19
	Disruptive	0	0	3.12	1.36	0
Uniform Product		8.33	0	0	17.22	4.44
	On-task	95.31	0	0	88.75	100.00
	Off-task	4.68	0	0	10.00	0
	Wandering	0	0	0	0	0
	Disruptive	0	0	0	1.25	0
Eating		3.33	11.11	0	0	4.44
	On-task	100.00	100.00	0	0	87.50
	Off-task	0	0	0	0	9.37
	Wandering	0	0	0	0	0
	Disruptive	0	0	0	0	3.12
Transition		15.55	17.22	22.22	13.33	13.88
	On-task	93.75	91.70	92.83	95.83	78.94
	Off-task	4.46	8.29	4.86	0	11.84
	Wandering	0	0	0	0	0
	Disruptive	1.78	0	2.77	4.16	9.21
Outside		20.55	17.77	11.11	0	11.66

A small percent of behaviors were classified as wandering. The number of isolated instances of one child hitting, kicking, or biting another child was also recorded. This "hitting" behavior did not occur at all in Center K, and in centers J, L, N, and M it occurred 1, 9, 9, and 13 times, respectively.

Table 12

Percent of Time Spent in Each Behavior Category Regardless of Activity During the Minimum of 160 Minutes of Observation in the Selected Classroom of Each Center Enrolling 30-59 Children

Center	On-Task	Off-Task	Wandering	Disruptive
J	95.58	3.30	0.18	0.91
K	94.68	5.01	0	0
L	88.30	3.55	2.88	5.28
M	91.71	6.62	0	1.65
N	92.19	5.44	0.58	1.76

Measures of Quality of Care in Centers Enrolling 12-29 Children

As indicated previously, 3 of the 17 centers in the study enrolled from 12-29 children. In the paragraphs following, each of these centers is described in terms of staff/child ratio and group size, lead teacher education/experience, and observed activities and behaviors of children in the classroom.

Staff/Child Ratio and Group Size

As can be noted from Table 13, in the 3 centers enrolling from 12 to 29 children, the group size ranged from 8 to 12 children and the staff/child ratio was 1:4, 1:10, and 1:12. In no instance did the group size exceed even the most stringent of the NDCS recommendations (18); however, the center with a staff/child ratio of 1:12 actually exceeded the legal limit for staff/child ratio designated by Florida regulations for Title XX centers (1:10).

Table 13

Staff/Child Ratio and Group Size at 10:00 a.m. on the Date of the On-Site Visit for Each of the Selected Classrooms in Each of the Centers Enrolling 12-29 Children

Center	Staff/Child Ratio	Group Size
O	1:10	10
P	1:12	12
Q	1: 4	8

Lead Teacher Education/Experience

As can be seen from Table 14 there was a range of 11-16 years in terms of the schooling of the lead teachers; in terms of their number of years in the center, the range was from less than a year to 4 years. The lead teacher with 11 years of schooling was the only one who had not had child-related courses.

Table 14

Education/Experience of the Lead Teacher of Each Selected Classroom in Each Center Enrolling 12-29 Children

Center	Number of Years of Schooling	Number of Years in Center	Had Child-Related Courses
O	13	2	Yes
P	11	4	No
Q	16	0	Yes

Observed Classroom Activities and Behaviors of Children

As can be noted in Table 15, wide variation existed among the centers as to the amount of time spent in the various activity categories. In Center P, no time was spent in free choice; in Centers O and Q, free choice was limited to only 24.70% and 26.66%, respectively. Although the weather was good during the observation, the children in Center Q did not go outside to play. Within these categories it can be seen that on-task was the predominant behavior, ranging from 100% during uniform product in Center O and eating in Center P to 76.49% during uniform participation in Center O. The children in Center O exhibited considerably higher (11.19%) time in disruptive behavior during uniform participation than was exhibited during any other activity or in any other center.

Presented in Table 16 are data relative to the total percent of time in which children were engaged in each of the behavior categories regardless of the activity which was occurring. The dominant behavior in all centers was on-task, but in this behavior category there was

Table 15

Percent of Time Spent in Each Activity Category and Each Behavior Category Within the Activity During the Minimum of 160 Minutes of Observation in the Selected Classroom of Each Center Enrolling 12-29 Children

Activity Category	Behavior Category	Center O	Center P	Center Q
Free Choice		24.70	0	26.66
	On-task	82.25	0	94.93
	Off-task	3.67	0	4.05
	Wandering	11.25	0	0.67
	Disruptive	2.81	0	0.33
Uniform Participation		32.35	35.88	56.11
	On-task	76.49	95.30	87.40
	Off-task	12.31	3.69	9.25
	Wandering	0	0	1.11
	Disruptive	11.19	1.00	2.16
Uniform Product		1.17	12.94	7.77
	On-task	100.00	99.24	84.09
	Off-task	0	0	10.22
	Wandering	0	0	0
	Disruptive	0	0.75	5.68
Eating		0	7.64	0
	On-task	0	100.00	0
	Off-task	0	0	0
	Wandering	0	0	0
	Disruptive	0	0	0
Transition		10.58	18.82	9.44
	On-task	79.06	94.13	97.88
	Off-task	15.11	4.69	0.70
	Wandering	2.32	0	0
	Disruptive	3.48	1.17	1.40
Outside		31.17	24.70	0

a range between centers of 80.50% to 96.23%. The next most common behavior was off-task, followed by disruptive and then by wandering behaviors. It can be noted that wandering behavior in Center O reached the high level of 6.45% and disruptive behavior reached the high level of 5.56%. In addition to the behavior shown by the categories in Table 16, the number of isolated instances of one child hitting another ranged from 10 in Center P to 28 and 42 in Centers Q and O, respectively.

Table 16

Percent of Time Spent in Each Behavior Category Regardless of Activity During the Minimum of 160 Minutes of Observation in the Selected Classroom of Each Center Enrolling 12-29 Children

Center	On-Task	Off-Task	Wandering	Disruptive
O	80.50	7.55	6.45	5.56
P	96.23	2.86	0	0.90
Q	90.71	6.67	0.77	1.83

Comparisons Among Center Size Categories Relative to the Quality of Care Variables

In Tables 17-20, the 17 centers are grouped into the 4 size categories and data are displayed relative to each of center quality variables, i.e., staff/child ratio, group size, lead teacher education/experience, and the activities and behaviors of children in the classroom.

Staff/Child Ratio and Group Size

In Table 17, the 17 centers are grouped into the 4 size categories. Data relative to staff/child ratio and group size are given for each center, and means are displayed for each size category to facilitate the comparison among the different size categories. The mean staff/child ratio of centers in the different size categories fell within the relatively narrow range of 1:6.52 to 1:8.67. There was greater variation in terms of group size, with the largest centers having the largest mean group size, and the smallest centers having the smallest mean group size. The mean group size was 16.75, 14.00, 10.20, and 10.00 for centers of 100+, 60-99, 30-59, and 12-29 children, respectively.

Lead Teacher Education/Experience

Another measure of quality of care provided in centers was lead teacher education/experience. This was defined in terms of the number of years of schooling completed by the lead teacher, her years of employment in the center, and whether or not she had taken child-related courses. As can be seen in Table 18, there was only slight variation among centers in the various size categories relative to the mean years of schooling completed. The range was from a low of 13.25 years in centers of 100+ children to a high of 14.40 years in centers of 60-99 children.

A second measure of lead teacher education/experience was the number of years of employment in the center. As can be seen in Table 18, mean years of employment for lead teachers in centers enrolling 100+ children (3.75 years) indicates that they had been employed in

Table 17

Staff/Child Ratio and Group Size in the Selected Classroom for Each Center and Means for Each Center Size Category

Center	Staff/Child Ratio	Group Size
100+ Children		
A	1: 4.75	19.00
B	1:10.50	21.00
C	1: 5.50	11.00
D	1: 5.33	16.00
Mean	1: 6.52	16.75
60-99 Children		
E	1: 9.00	9.00
F	1: 9.00	9.00
G	1: 3.50	21.00
H	1: 9.00	18.00
I	1: 6.50	13.00
Mean	1: 7.40	14.00
30-59 Children		
J	1: 8.00	8.00
K	1: 9.00	18.00
L	1: 8.00	8.00
M	1: 4.00	8.00
N	1: 4.50	9.00
Mean	1: 6.70	10.20
12-29 Children		
O	1:10.00	10.00
P	1:12.00	12.00
Q	1: 4.00	8.00
Mean	1: 8.67	10.00

Table 18

Lead Teacher Years of Schooling and Experience for Each Individual Center and Means for Each Center Size Category

Center	Number of Years of Schooling	Number of Years in Center
100+ Children		
A	13.00	3.00
B	14.00	4.00
C	13.00	6.00
D	13.00	2.00
Mean	13.25	3.75
60-99 Children		
E	16.00	0.00
F	16.00	3.00
G	15.00	1.00
H	11.00	1.00
I	14.00	0.00
Mean	14.40	1.00
30-59 Children		
J	12.00	0.00
K	17.00	5.00
L	14.00	1.00
M	11.00	5.00
N	14.00	1.00
Mean	13.60	2.40
12-29 Children		
O	13.00	2.00
P	11.00	4.00
Q	16.00	0.00
Mean	13.33	2.00

their current situations for a longer period of time than had those in the other size categories. The mean years of employment of the lead teachers in centers enrolling 60-99 children (1.00 years) shows that they had been employed in their centers for a shorter period of time than had those in the other size categories.

The third measure of lead teacher education/experience was whether or not she had taken child-related courses. All lead teachers in the three largest size categories had taken courses relative to child care. The only lead teacher who had not taken such courses was employed in Center P, which was in the 12-29 category.

Observed Classroom Activities and Behaviors of Children

In Table 19, centers have been grouped into four size categories, and data relative to the percent of the total observation time spent in each activity category are displayed. Also shown is the ranking for each center on each activity and the mean rank on each activity for each size category. Centers with low mean rankings were centers having the largest amount of time spent in the described activity, and centers with high mean rankings were those centers having the smallest amount of time spent in the described activity.

The mean rank of the centers based on activity categories showed that children in centers of 100+ enrollees spent considerably more time in free choice activities than did children in any of the other size categories. Specifically, as shown in Table 19, the mean rank for free choice in centers of 100+ was 3.80, whereas in centers of 60-99, 30-59, and 12-29 children the mean ranks were 11.40, 10.10, and

Table 19

Comparisons of Children's Activities by Activity Categories

Center	Free Choice		Uniform Participation		Uniform Product		Eating		Transition		Outside	
	Percent[a]	Rank[b]	Percent	Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	Rank
100+ Children												
A	27.22	6.00	21.66	16.00	23.88	1.00	0.00	12.50	6.11	16.00	21.11	3.00
B	29.37	5.00	42.93	8.00	10.16	8.00	0.00	12.50	15.81	9.00	0.00	14.50
C	38.88	1.00	51.11	4.00	0.00	15.50	0.00	12.50	10.00	14.00	0.00	14.50
D	31.17	3.00	45.88	6.00	12.35	7.00	4.70	3.00	5.88	17.00	0.00	14.50
Mean Rank		3.80		8.50		7.88		10.10		14.00		11.60
60-99 Children												
E	10.00	12.00	20.00	17.00	21.25	3.00	0.00	12.50	30.00	3.00	18.75	5.00
F	15.00	10.00	47.22	5.00	2.77	12.00	0.00	12.50	26.11	4.00	8.88	11.00
G	0.00	15.50	34.37	12.00	17.50	4.00	3.75	5.00	44.37	1.00	0.00	14.50
H	0.00	15.50	43.91	7.00	22.36	2.00	0.00	12.50	33.78	2.00	15.90	8.00
I	31.11	4.00	28.88	15.00	0.00	15.50	3.33	6.50	18.88	6.00	17.77	6.50
Mean Rank		11.40		11.20		7.30		9.80		3.20		9.00

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[a] Refers to percent of the total observed time in the observed activity category regardless of behavior.

[b] Refers to the relative rank of the 17 centers with the largest percent of the observed time in the activity being ranked 1.

Table 19

Continued

Center	Free Choice		Uniform Participation		Uniform Product		Eating		Transition		Outside	
	Percent	Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	Rank	Percent	Rank
30-59 Children												
J	9.44	13.00	42.22	9.00	8.33	9.00	3.33	6.50	15.55	10.00	20.55	4.00
K	16.11	9.00	37.77	10.00	0.00	15.50	11.11	1.00	17.22	8.00	17.77	6.50
L	33.33	2.00	33.33	13.00	0.00	15.50	0.00	12.50	22.22	5.00	11.11	10.00
M	0.00	15.50	69.44	1.00	17.22	5.00	0.00	12.50	13.33	12.00	0.00	14.50
N	13.88	11.00	51.66	3.00	4.44	11.00	4.44	4.00	13.88	11.00	11.70	9.00
Mean Rank		10.10		7.20		11.20		7.30		7.20		8.80
sp 12-29 Chidlren												
O	24.70	8.00	32.35	14.00	1.17	13.00	0.00	12.50	10.58	13.00	31.17	1.00
P	0.00	15.50	35.88	11.00	12.94	6.00	7.64	2.00	18.82	7.00	24.70	2.00
Q	26.66	7.00	56.11	2.00	7.77	10.00	0.00	12.50	9.44	15.00	0.00	14.50
Mean Rank		10.20		9.00		9.70		9.00		11.70		5.80

[a] Refers to percent of the total observed time in the observed activity category regardless of behavior.

[b] Refers to the relative rank of the 17 centers with the largest percent of the observed time in the activity being ranked 1.

10.20, respectively. In centers of 100+ children, considerably less time was spent in transition than in any other activity category as evidenced by a mean rank of 14.00 for centers of 100+ children, and mean ranks of 3.20, 7.20, and 11.70 for centers enrolling 60-99, 30-59, and 12-29 children, respectively.

Although time spent in eating and outside play varied among the size categories, this variation appeared to be a function of the weather and the times of scheduled meals rather than a function of differences relative to size. On the point, due to rain, outdoor play was curtailed in three of the four largest centers.

With reference to percent of time spent in uniform participation, the mean ranks of the centers grouped by size did not show great differences, but rather were confined within the range of 7.20 for centers of 30-59 children to 11.20 for centers of 60-99 children. Similar variation was noted between the size categories with reference to uniform product activities, showing a mean rank range of 7.30 for centers of 60-99 children to 11.20 for centers of 30-59 children.

As can be noted in Table 19,with respect to no activity, except outside activity, did the mean rank of the various center size categories increase or decrease in congruence with an increase or decrease in the number of children enrolled in the centers. Rather, the two size categories which were the least similar to each other with reference to ranking by activity categories were the categories of 100+ and 60-99 children.

The rank and percent of time for each center and each size category for each of the behaviors exhibited by the children regardless of the activity in which they were engaged are displayed in Table 20. The

Table 20

Comparisons of Children's Behaviors Regardless of Activity Category

Center	On-Task		Off-Task		Wandering		Disruptive	
	Percent[a]	Rank[b]	Percent	Rank	Percent	Rank	Percent	Rank
100+ Children								
A	97.55	1.00	0.92	17.00	0.99	6.00	0.53	12.50
B	96.57	7.00	3.31	14.50	0.00	4.00	0.11	15.00
C	94.76	5.00	2.99	14.50	0.80	7.50	1.47	9.00
D	94.60	2.00	2.98	12.50	1.98	15.00	0.22	16.00
Mean Rank		3.75		14.62		8.12		13.12
60-99 Children								
E	66.66	17.00	30.48	1.00	0.71	9.00	2.13	5.00
F	82.98	14.00	13.06	3.00	1.58	5.00	2.37	4.00
G	87.50	12.00	11.87	4.00	0.30	11.00	0.36	14.00
H	79.17	16.00	20.33	2.00	0.00	15.00	0.48	12.50
I	84.21	13.00	9.97	5.00	2.08	3.00	3.72	3.00
Mean Rank		14.40		3.00		8.60		7.70
30-59 Children								
J	95.58	4.00	3.30	12.50	0.18	12.00	0.91	10.50
K	94.68	6.00	5.01	10.00	0.00	15.00	0.00	17.00
L	88.30	11.00	3.55	11.00	2.88	2.00	5.28	2.00
M	91.71	9.00	6.62	8.00	0.00	15.00	1.65	8.00
N	92.19	8.00	5.44	9.00	0.58	10.00	1.76	6.50
Mean Rank		7.60		10.10		10.80		8.80
12-29 Children								
O	80.50	15.00	7.55	6.00	6.45	1.00	5.56	1.00
P	96.23	3.00	2.86	16.00	0.00	15.00	0.90	10.50
Q	90.71	10.00	6.67	7.00	0.77	7.50	1.83	6.50
Mean Rank		9.33		9.66		7.83		6.00

[a] Refers to percent of time spent in the behavior category regardless of the activity.

[b] Refers to the relative rank of the 17 centers with the largest percent of time spent in the behavior category being ranked 1.

dominant behavior in each size category was on-task. Centers of 100+ children had the greatest percent of time spent in on-task behavior and centers of 60-99 children had the least. Specifically, the mean rank of the size categories relative to on-task behavior was 3.75, 7.60, 9.33, and 14.40 for centers of 100+, 30-59, 12-29, and 60-99, respectively. The mean ranking of the size categories relative to wandering behavior ranged from 7.83 to 10.80. Relative to disruptive and hitting behavior which is not shown in the table, there was a wide variation among the size categories. On the point, the mean number of times hitting behavior was observed was 4.00, 18.00, 6.40, and 26.70 in centers of 100+, 60-99, 30-59, and 12-29 children, respectively.

Measures of Continuity of Care Indicated by Center Closing

As has been previously indicated, a measure of continuity of care, as determined by the stability of the day care center operation, was seen as another indicator of quality in day care centers. Therefore, the focus of the second question was the day care centers in the urban county which were licensed on January 1, 1974, in reference to whether or not those centers were still licensed on January 1, 1979.

In contrast to the four size categories utilized in the study of Title XX centers, in the study of continuity of care, which included all centers licensed in the urban county on January 1, 1974, five size categories were identified and utilized. The four largest categories (100+, 60-99, 30-59, and 12-29) coincided with the four categories previously used, and a fifth category, 6-11 enrollees, was added because

Florida licenses day care facilities enrolling 6+ children as day care centers, and facilities enrolling less than 6 as family day care homes.

In this regard, data are presented in Table 21. Information about licensed capacity of centers is included to show impact of center closing in terms of the potential number of children affected. In terms of question two, the most significant column in the table is the last column, which shows a larger percent of the large centers were open on January 1, 1979, than were small centers. Specifically, 40.00%, 57.69%, 60.00%, 78.36%, and 95.83% of the centers open January 1, 1974, were open January 1, 1979, when centers were placed into size categories of 6-11, 12-29, 30-59, 60-99, and 100+ enrollees, respectively. Only one of the 24 centers enrolling 100+ children closed during that period, creating a potential discontinuity in care for 129 children; whereas 27 of the 45 centers with 6-11 enrollees closed during that period, creating a potential discontinuity of care for 270 children. The largest potential group of children, 1,248, whose day care arrangement was discontinued were enrolled in the 36 closed centers having a licensed capacity of 30-59 children.

Table 21

January 1, 1979, Status of Urban County Day Care Centers Open on January 1, 1974

Size	Number Centers Open Jan. 1, 1974	Licensed Capacity Jan. 1, 1974	Number Open Jan. 1, 1974, and Still Open Jan. 1, 1979	Licensed Capacity of Centers Open Jan. 1, 1974, and Still Open Jan. 1, 1979	Number Centers Open Jan. 1, 1974, and Closed Jan. 1, 1979	Licensed Capacity of Centers Open Jan. 1, 1974, and Closed Jan. 1, 1979	Percent of Jan 1, 1974, Licensed Centers Open on Jan. 1, 1979
6-11	45	452	18	182	27	270	40.00%
12-29	78	1466	45	881	33	585	57.69%
30-59	85	3120	51	1872	34	1248	60.00%
60-99	46	3274	36	2584	10	680	78.36%
100+	24	3317	23	3188	1	129	95.83%
	278	11,629	173	8,717	105	2,912	

CHAPTER IV

DISCUSSION OF THE DATA

With the exception of the data relative to continuity of care, two different frames of reference are used to interpret the data presented in the preceding chapter relative to day care center size and measures thought to be indicative of quality of care provided by day care centers. The two frames of reference are the findings and recommendations cited in the review of literature chapter with emphasis given to the findings and recommendations of the NDCS, and the judgments of three experienced day care center operators, including the researcher, about the quality of care being provided in the selected classrooms observed by the researcher.

In regard to the judgments, the researcher asked two other persons educated in the field of early childhood education and experienced in day care center operation to use the following premises formulated by the NDCS research team (Ruopp et al., 1979) as a frame of reference, to read the narrative description of the center classrooms (Appendix B) prepared by the researcher/observer, and to review the data from the observation instrument.

> First the welfare of the individual child and of children collectively must be central to any issue of quality. . . . Second, it is not enough to protect children from obvious forms of harm such as malnutrition, accidents and communicable diseases. . . . quality programs must, be definition, actively promote healthy and normal social, emotional and cognitive development. . . . Third, judgements of

> quality must rest on direct assessment of the child's daily experience and its developmental impact. (pp. 63-64)

Taking into account the above premises and the data provided, each person made an admittedly subjective evaluation of each of the 17 centers. Also, it should be recognized that the researcher had additional data--her classroom observations. The evaluations were made as though the reader were a parent eligible to place a child in a Title XX funded program and had the reader's knowledge about early childhood education, about the state of the art, and about realistic quality/cost trade-offs.

The readers placed each center into one of three categories: (1) centers in which they would be willing to enroll their own child and which they would classify as good to superior; (2) centers in which they would not enroll their own child but which they would rate from marginal to satisfactory; and (3) centers which they considered unsatisfactory.

The readers were in agreement that Centers A, B, C, D, and M were good to superior centers. Of these five centers, four were in the 100+ size category and one was in the 30-59 size category. The readers further agreed that Centers J, K, L, N, and Q were marginal to satisfactory. Of these five centers, four were in the 30-59 size category, and one was in the 12-29 size category. Seven centers were rated unsatisfactory due either to an evaluation of the activities and behaviors of children or to deficiencies in sanitation/safety. Of the seven centers, five were in the 60-99 size category and two were in the 12-29 size category.

Thus, in the urban Florida county, when the quality of the Title XX centers was judged after a review of the data by three persons knowledgeable in both early childhood education and the funding/regulation problems of day care operation, center size was related to center quality in the following ways: centers of 100+ children tended to be judged better, followed by centers of 30-59 children; those centers enrolling 60-99 children were judged to be least good; and in centers enrolling 12-29 children there was little consistency.

In the sections which follow, each of the independent variables is discussed in relation to center size.

Staff/Child Ratio and Group Size

According to findings in the NDCS (Ruopp, 1979),staff/child ratio has a slight relationship to NDCS measures of quality:

> Caregiver/child ratio, within the policy relevant range of 1:5 to 1:10, shows some relationships to measures of caregiver and child behavior, although the results are not consistent. Ratio is not related to child test score gains. (p. 3)

To the extent that staff/child ratio does indicate quality, the largest centers included in the study had the highest quality of care, followed by centers of 30-59, 60-99, and 12-29 children, respectively. However, since the mean staff/child ratio in every size category fell within a 1:6.52-1:8.67 range, which Ruopp found to be acceptable, great significance probably should not be placed on the variations in staff/child ratio among the size categories.

A knowledge of Title XX centers' budgetary problems led the researcher and the two experienced day care center operators to believe that the low staff/child ratios found in 16 of the observed classrooms were not in every case necessarily indicative of the normal staff/child ratio. Perhaps in some instances adjustments in the ratio had been made by utilizing staff from other classrooms or by temporarily transferring certain children to other classrooms on the morning of the observation immediately after the observer named the classroom selected for observation.

When centers were categorized relative to quality by the readers, the mean staff/child ratio decreased consistently as center evaluations increased. The highest mean staff/child ratio (most children per staff member; 1:8.42) was found in centers evaluated as unsatisfactory. However, the highest staff/child ratio of the 17 centers was in Center P which enrolled 18 children and was judged by the readers as unsatisfactory; the lowest staff/child ratio was found in Center G, which enrolled 73 children and was also judged unsatisfactory. Thus, although a low staff/child ratio tended to occur more frequently in centers of judged high quality, this was not always the case.

The findings stand in opposition to the findings of Fitzsimmons and Rowe (1971) who stated that larger centers seemed to find it harder to provide quality child care even when they could maintain favorable staff/child ratios. In the present study, centers of 100+ children were able to provide the lowest staff/child ratio and the highest quality of care as judged by the readers; and centers of 60-99, which also maintained low staff/child ratios, provided unsatisfactory care as judged by the readers.

As a result of the NDCS, Ruopp (1979, p. 2) stated that "Group size shows strong and consistent relationships to NDCS measures of quality. . . . Across all study sites, smaller groups are consistently associated with better care, more socially active children, and higher gains on two developmental tests." He recommended that group size be restricted to no more than 18 children and that even better day care could be provided if the groups were limited to no more than 14 children.

When the mean group size of the centers in the four size categories is examined, it can be seen that wide variation exists. Yet, with the exception of Centers A, B, and G which had 19, 21, and 21 children, respectively, in the groups observed, all groups were within the 18 children standard and 11 centers were within the 14 children standard. Centers of 100+ children had the largest mean group size, followed consecutively by centers of 60-99, 30-59, and 12-29 children. Thus, in the present study even though group size was related to center size, in every size category the mean group size fell within the size considered adequate by Ruopp (18 children).

When centers were grouped according to the judgments of the readers, a mixed pattern emerged relative to group size. Those centers valued as good to superior had a mean group size of 15.00 children, and centers valued as marginal to satisfactory and as unsatisfactory had mean group sizes of 10.20 and 13.14, respectively.

In his report of the findings of the NDCS, Ruopp (1979) recommended that the revised FIDCR should include one of the following three basic policies relevant to staff/child ratio in conjunction with group size:

> Policy A: Group size shall be less than or equal to 14 children and staff/child ratio shall equal or exceed 1:7.
>
> Policy B: Group size shall be less than or equal to 16 children and staff/child ratio shall equal or exceed 1:8.

> Policy C: Group size shall be less than or equal to 18 children and staff/child ratio shall equal or exceed 1:9. (p. 64)

In the present study of 17 centers, Policy A, the most stringent, was met by five centers, Policy B was met by one center, and Policy C was met by two centers. Nine centers did not meet either of the three policy suggestions. When centers were grouped according to size categories, 60% of the centers in the 30-59 category met at least the minimum policy recommendation, followed by 50%, 40%, and 33% of the centers with an enrollment of 100+, 60-99, and 12-29 children, respectively.

When centers were grouped according to quality as judged by the readers, 60% of the centers evaluated as marginal to satisfactory met at least the minimum policy recommendation, followed by 40% and 29% of the centers evaluated as good to superior and as unsatisfactory, respectively. Of the nine centers which did not meet any of the policy recommendations, two had been valued good to superior, two satisfactory to marginal, and five unsatisfactory.

Lead Teacher Education/Experience

The findings of Ruopp (1979) regarding total years of formal education and total years of day care experience were that these factors were not systematically associated with caregiver behavior, child behavior, or child test score gains. Only participation in child-related education/training programs was found to be a determinant of classroom process and test scores. Prescott and Jones (1967) found that large programs (60-99 enrollees) generally had a more professionally trained teaching and administrative staff, a factor which was thought to be associated with a quality program but was not.

In the present study, when lead teacher education, defined in terms of years of schooling completed, was compared to center size, the variation between size categories was very small; the range in means was 13.25-14.40. However, the highest mean (14.40) was found in centers enrolling 60-99 children, and the lowest mean (13.25) in centers enrolling 100+ children.

In Prescott and Jones' 1972 study, they found that large programs (60-99) had significantly higher staff turnover than programs of small (12-29) or medium (30-59) enrollees. Prescott speculated that this higher staff turnover was caused by a lack of staff satisfaction with programs where the atmosphere was impersonal and where opportunities for staff participation in decision-making were limited. In the present study, findings with reference to lead teacher experience in a center supported the finding of Prescott and Jones in that lead teachers in centers of 60-99 children had been in the center a mean of only 1.00 year, whereas in centers of 30-59 and 12-29 children the lead teachers had been in the center an average of 2.40 and 2.00 years, respectively. However, in the present study, it was also found that lead teachers in centers of 100+ children had been employed in the center a mean of 3.75 years. In sum, the number of years the lead teacher had been employed in a center did appear to have a slight association with center size. Prescott and Jones did not examine centers in the 100+ size category.

Relative to the value of child-related courses, in all but one of the 17 classrooms the lead teachers had taken courses relative to child care. Thus, this part of the lead teacher education/experience did not vary in relation to size.

When centers were grouped according to the evaluations made by the readers, in those centers evaluated as good to superior it was found that the mean years of schooling completed by the lead teachers was 12.80. In those centers evaluated as marginal to satisfactory, it was 14.60; and in those evaluated as unsatisfactory, it was 13.70. If the judgments of the readers are examined in relation to size categories it can be noted that all centers in the 60-99 size category were judged unsatisfactory. Prescott and Jones, in their 1967 study, found that programs of 60-99 children generally had more professionally trained staff members. However, they did not find this to be a factor associated with their judgment of quality. In the present study, using the readers' judgments of quality and noting that the centers in the size category of 60-99 were judged unsatisfactory and that lead teachers in those centers had the highest mean years of schooling (14.40), there is some support for Prescott's finding that there is generally a higher level of education in these centers. However, it should be noted that the center in which the lead teacher had the highest number of years of schooling was Center K which was in the 30-59 size category and had been evaluated by the readers as marginal to satisfactory.

The number of years the lead teachers had been employed in the center under study did appear to bear some relationship to center quality as judged by the readers. In centers judged by the readers as good, the lead teachers had been employed in the centers a mean of 4.00 years; whereas in centers judged as marginal to satisfactory and as unsatisfactory, the means were 1.40 and 1.60 years, respectively.

Activities and Behaviors of Children

A review of the relevant research indicated a reasonable consensus among the experts that quality day care could be associated with certain activities and behaviors of children. Such activities and behaviors included social interaction, cooperation, verbal initiative, low hostility and conflict, involvement in activities and with others, task persistence, and interest/participation.

The NDCS researchers coded children's behavior on the following variables:

> Verbal initiative
> Reflection/innovation
> Cooperation
> General interest/participation
> Aimless wandering
> Noninvolvement
> Task persistence
> Attention to adults
> Attention to other children
> Attention to the environment. (Ruopp et al., 1979, p. 33)

The behavior codes used in the present study were less extensive than those in the NDCS. Children's behaviors were categorized as being on-task, off-task, wandering, disruptive, and hitting. The activities were categorized as free choice, uniform participation, uniform product, transition, eating, and outside.

Within the context of the coding system used in the present study, high on-task behavior was found to be a strong correlate of center size. In centers of 100+ children, on-task behavior ranged from 94.60% to 97.55% with a mean rank of 3.75; centers enrolling 60-99 children had a range of 66.66%-87.50% with a mean rank of 14.40; centers enrolling 30-59 children had a range of 88.30%-95.58% with a mean rank of 7.60; and centers enrolling 12-29 had a range of 80.50%-96.23% with a mean rank of 9.33.

In addition to the highest proportion of on-task behavior, the lowest incidence of disruptive and hitting behaviors was found in centers of 100+ children. Wandering behavior occurred more frequently in centers of 100+ children than in any other centers. However, since the wandering behavior in centers of 100+ children was not excessive, it appeared to be a function of the large percent of time children spent in free choice as opposed to the more restrictive programs found in the other size categories.

Time spent in free choice activities varied greatly, with centers of 100+ children having a mean rank of 3.80 which was indicative of large proportions of time in free choice. Centers in the three other size categories had mean ranks ranging from 10.10 to 11.40, indicating that relatively less time was spent in free choice activities in those centers.

The mean ranks relative to transition activities indicated that, in centers of 100+ children, less amount of total time was spent in transitions, followed by centers of 12-29, 30-59, and 60-99 children, respectively. From a review of previous research it was concluded that the large blocks of time associated with free choice and small blocks of time associated with transitions, as were found in centers of 100+ children, are to be valued as indicators of high quality and that the reverse of this situation, as observed in centers of 60-99 children, is an indicator of poor quality.

Time spent in uniform product and uniform participation showed a small range of variation among size categories. Thus, it is not possible to make any meaningful statement relative to their relationship to center size. Since time spent in eating and outside play was dependent on the weather and feeding schedules, it was not deemed relevant to center size, but was included in the present study in order that the total observation time could be categorized by activity.

When centers were grouped according to quality as judged by the readers, it was found that in those centers identified as good to superior, free choice activities occurred a minimum of 27.22% of the time except in Center M. In Center M, the uniform product and uniform participation activities, which consumed a considerable proportion of the observation time, were carried out in a manner that allowed children to often move about as they saw fit, to seek help from others, and the like. In other words, although in Center M free choice did not occur, the uniform product and uniform participation activities were much like free choice activities. The generally nonrestrictive atmosphere of Center M was like the atmosphere in Centers A, B, C, and D.

Additionally, in the higher rated centers it was noted that transitions did not exceed 15.81% of the total time and on-task behavior did not fall below 91.71%. In contrast to these data for centers evaluated as good to superior, in centers evaluated as unsatisfactory the mean ranks indicated these centers had the least amount of time in free choice, the longest transitions, and the lowest on-task behavior. It was the cluster of these three measures of activities and behaviors of children which were found to be most predictive of center goodness as judged by the readers. High on-task behavior was found in a very restrictive environment (Center L). High incidence of free choice was found in a center which also had a high incidence of disruptive and hitting behavior (Center I). Short transitions were found in a center which had few activities from which one would need to move in transition

(Center O). Therefore, it was only when short transitions, high on-task behavior, and high incidence of free choice activities (if activities conducted in an unrestircted manner in Center M are counted as free choice) occurred collectively that they were consistent indicators of centers judged as good to superior by the readers. In those centers, total on-task behavior did not fall below 91.70%, transitions did not exceed 15.81%, and free choice did not occur less than 27.22% of the time.

The present study did not support the statement of Prescott and Jones (1967) that, although centers of 60-99 children did indeed have program formats permitting more free play rather than teacher-directed activities, these factors were not associated with quality programs in which positive interaction patterns could be observed. The judgments of the readers in the present study were consistent with those findings of Prescott and Jones which stated that centers of 60-99 children were of the poorest quality when judged in terms of the activities and behavior of the children. However, Prescott and Jones did not examine centers with enrollments greater than 99 children. This may account for their statement relative to the relationship between poor quality and large size. They found that centers of medium size (30-59) tended to provide better care than centers of smaller (12-29) or larger (60-99) size. The present study would have supported Prescott's views if centers of 100+ children had not been examined and found to be the best when quality defined in terms of activities and behaviors of children was evaluated by the readers. However, the same reasoning cannot be used to explain the incongruence with the 1971 study of Fitzsimmons and Rowe stating that larger centers seem to find it harder to provide quality care. Fitzsimmons and Rowe's study included three centers of 100+ children.

Continuity of Care

A review of the relevant research indicated that stability of the caregiving situation was of positive benefit to children. The finding from the present study indicated that center size was related to continuity of care when continuity of care was defined in terms of center closing.

Of the 24 centers in the urban county with a licensed capacity of 100+ children open on January 1, 1974, 95.83% were still open on January 1, 1979. The percent of centers open January 1, 1974, and still open January 1, 1979, decreased relative to a decrease in center size. Specifically, those remaining open equaled 78.36%, 60.00%, 57.69%, and 40.00% of centers enrolling 60-99, 30-59, 12-29, and 6-11 children, respectively. Thus, to whatever extent continuity of care is related to quality of care, the results of the present study supported the notion that the larger the center the higher the quality of care provided.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

Given the paucity of research regarding child day care center size and quality of care provided and the controversy regarding variables indicative of quality in centers, the study reported herein related to child day care centers in a single urban Florida county was undertaken. The aim of the study was to determine if an association existed between center size and center quality. Specifically, answers were sought to the following questions:

1. When day care centers in which the majority of enrollees are eligible for day care funded by Title XX of the Social Security Act are grouped according to size, is there a difference in the quality of care measured in terms of (a) staff/child ratio in conjunction with group size, (b) lead teacher education/experience, and (c) activities and behaviors of children?
2. Is there a difference in continuity of care measured in terms of center closing when centers are grouped according to size?

In reference to the first question, 17 centers were identified as meeting the established criteria. The researcher observed in a 4-year-old children's classroom for a minimum of 160 minutes in each of the 17 centers. She observed and recorded staff/child ratio and group size at 10:00 a.m.; questioned the lead teacher as to her number of years of schooling completed, the number of years she had worked in the center, and whether she had taken child-related courses; observed and recorded the activities and behaviors of children in both narrative form and as percents of time spent in activities classified as free choice, uniform participation, uniform product, transitions, eating, and outside, and percents of time spent in behaviors classified as on-task, off-task, wandering, and disruptive. Additionally, she recorded isolated instances of hitting behavior. The findings were reported for four size categories of centers: those enrolling 100+, 60-99, 30-59, and 12-29 children.

In reference to the second question, the researcher examined the records of day care center licenses in the urban Florida county to identify all centers in the county which had been licensed on January 1, 1974, and determined whether or not they were still licensed on January 1, 1979. The information thereby obtained was considered as an indicator of the continuity of care provided children, and was examined in reference to five center size categories: those licensed for 100+, 60-99, 30-59, 12-29, and 6-11 children.

In regard to staff/child ratio and center size, the following findings emerged:

1. Mean staff/child ratios in the center size categories ranged from a low of 6.52 to a high of 8.67.
2. The mean staff/child ratio was lowest in centers of 100+ children, followed consecutively by centers of 30-59, 60-99, and 12-29 children.

3. In 14 of the 17 centers the staff/child ratio was within the limits recommended in the report of the NDCS (1:9).

In regard to group size and center size there were the following findings:

1. Mean group size for the four center size categories ranged from a low of 10.00 to a high of 16.75. Mean group size was smallest in centers of 12-29 children, followed consecutively by centers of 30-59, 60-99, and 100+ children.
2. Three centers did not meet the maximum group size recommended in the NDCS (18). Of those, two were in centers enrolling 100+ children, and one was in a center enrolling 60-99 children.

Relative to staff/child ratio in conjunction with group size it was found that of the centers in the 30-59 size category, 60% met the most lenient recommendations made by the NDCS. In centers of 100+, 60-99, and 12-29 children, the minimum recommendations were met by 50.00%, 40.00%, and 33.33% of the centers, respectively.

In regard to lead teacher education/experience and center size, the following findings emerged:

1. The mean number of years of schooling completed by the lead teachers within each of the center size categories ranged from 13.25 to 14.40.
2. Lead teachers in centers of 60-99 children had completed the highest mean years of school, followed by lead teachers in centers of 30-59, 12-29, and 100+ children, respectively.
3. The mean number of years the lead teacher had been employed within each of the center size categories ranged from 1.00 to 3.75 years.

4. Lead teachers in centers of 100+ children had been employed in the centers the longest mean time, followed by lead teachers in centers of 30-59, 12-29, and 60-99 children.
5. In all but one center, the lead teacher had taken child-related courses. The one center where the lead teacher had taken no such courses was in the 12-29 category.

When the relationships between center size and the activities and behaviors of the children were examined, the following were found:

1. In centers enrolling 100+ children, a higher percent of time was spent in free choice (range of 27.20%-38.88% and a mean rank of 3.80) than was spent in like activity in centers in any other size category. The time spent in free choice in the other size categories fell within a 0%-33.30% range and the mean ranks (10.10, 10.20, and 11.40) were considerably higher than that observed in centers of 100+ children. (The lower the rank the greater the proportion of time in an activity.)
2. In centers enrolling 60-99 children considerably more time was spent in transition (range 18.88%-44.37% and a mean rank of 3.20) than was found to be the case in any other size category.
3. In centers enrolling 100+ children, high on-task behavior (range 94.76%-97.55% and a mean rank of 3.75), low disruptive behavior (range 0.11%-0.53% and a mean rank of 13.12), and low hitting behaviors (mean hits--4) were observed.
4. The findings relative to the activities and behaviors of children for centers of 60-99 children were in greatest

> contrast to these findings for centers of 100+ children. In centers of 30-59 children, on-task behavior (range of 88.30%-95.58% and a mean rank of 7.60), off-task behavior (range of 3.30%-6.62% and a mean rank of 10.10), and disruptive behavior (range 0%-5.28% and a mean rank of 8.80) were most similar to the findings for centers of 100+ children. For centers of 12-29 children, wandering behavior (range of 0%-6.45% and a mean rank of 7.83) was most similar to the findings for centers of 100+ children.

Relative to continuity of care measured in terms of center closings, it was found that 96.90% of the centers of 100+ enrollees, 78.00% of the centers of 60-99 enrollees, 50.00% of the centers of 12-29 enrollees, and 40.00% of the centers of 6-11 enrollees that were open on January 1, 1974, were still open on January 1, 1979.

In an effort to provide a framework for interpreting the findings, the researcher and two other experienced day care center operators studied the data collected by the researcher (Appendix B), and made a global subjective judgment about the quality of care provided by each center. The centers were judged as good to superior, marginal to satisfactory, and unsatisfactory. This group judged the four centers in the 100+ size category and one of the five centers in the 30-59 size category to be good to superior. Four of the centers in the 30-59 size category and one of the three centers in the 12-29 category were judged marginal to satisfactory. All five centers in the 60-99 size category and two of the three centers in the 12-29 size category were judged unsatisfactory. It should be noted that three of the four centers in the 100+ enrollees category had staff/child ratios under 1:6.00 and the mean for the category was 1:6.52 (more favorable than the other three size categories). For this same group of four centers in the 100+ size category which were judged good to superior, the mean group size was the largest (16.75) of the four size categories, mean years of schooling of the lead teachers (13.25) was the smallest, the mean years of lead teacher experience in the center was the largest (3.25), the mean rank of time in free choice activities was the smallest (3.80, indicating a high amount of free choice), the mean rank of time spent in transitions was highest (14.00, indicating a low amount of transitions), and the on-task behavior was high in all four centers.

Conclusions

1. Relative to center size and quality of care measured in terms of staff/child ratio in conjunction with group size, there was no meaningful relationship. Centers of 100+ children enrolled tended to have the smallest staff/child ratios and the largest groups. Furthermore, 15 of the 17 centers were within the recommended National Day Care Study ranges relative to staff/child ratios and 14 of the 17 centers were within the maximum recommended group size.
2. Lead teacher education/experience was not consistently related to center size. Lead teachers in centers of 100+ children tended to have more experience in the centers and the fewest years of schooling. All but one of the 17 lead teachers had taken child-related courses.
3. Generally, proportionally greater amounts of time were spent in free choice activities and on-task behavior and generally

proportionally less time was spent in transition activities and disruptive (including instances of hitting) behaviors in centers of 100+ children. The centers most in contrast to the centers enrolling 100+ children relative to time spent in transitions, free choice, and on-task behavior were centers in the 60-99 size category.

4. In regard to continuity of care as measured in terms of center closing, stability of the day care center was found to decrease as center size decreased. In the 100+ enrollees size category almost 96% of the centers open on January 1, 1974, were still open five years later, whereas in centers of 6-11 children, only 40% were still open.

At a global level, when all variables were considered, centers of 100+ children appeared to be providing the highest quality of care, and centers of 60-99 the lowest quality of care, yet, beyond these two comments, there was no meaningful relation to size.

Another objective conclusion must be related to the direction of future research. The study of reference was conducted as a probing study to determine whether earlier findings concerning quality of care in centers of 60-99 children were applicable to centers of 100+ children. It would be helpful if the study were replicated in Title XX centers in other locales, and in the same urban Florida county with privately owned centers not receiving federal funds and with franchised centers. The study was an ex post facto design; therefore, interpretation was limited to inferences concerning association rather than cause and effect. A study of cause and effect and a study to determine whether high on-task behavior, short transitions, and high incidence of free-choice activities are consistently related to quality would expand the scope of the study of reference.

APPENDIX A

DATA COLLECTION INSTRUMENT

BEHAVIOR CATEGORY
(Record for each
student at two-
minute intervals)

- X on-task
- 0 off-task
- ⓧ disruptive
- W wandering

STUDENT

TIME

BEHAVIOR CATEGORY

ACTIVITY DESCRIPTION

APPENDIX B

NARRATIVE REPORT OF ON-SITE VISIT TO EACH CENTER GROUPED ACCORDING TO SIZE

Centers Enrolling 100+ Children

Center A

Size, staff, and children

Center A was licensed to care for 160 children ages birth to 6. At the time of the observation 143 children were enrolled in the center, and 19 children were in the 4-year-old children's classroom and thus were included in the study.

The lead teacher and three aides were directly involved with children or with preparing activities during the entire observation. They were never uninvolved and always appeared alert and interested. Behavior modification was used by them as they praised children for appropriate behaviors. They encouraged verbalizations and entered into numerous conversations with children. Directions were clearly given, voices were always pleasant, and the staff appeared to be enthusiastic and confident.

The lead teacher had been employed at the center for three years, had completed 13 years of school, and had completed almost all the courses required for a certificate in child care from the junior college.

At 10:00 a.m. four adults supervised a group of 19 children. The fourth adult was a floating aide who was not normally scheduled to be in that classroom. The staff/child ratio was 1:4.75.

Of the 19 children in the classroom, three had special problems. One child, Donald, was emotionally disturbed and awaiting placement in a special class, and two were child abuse/neglect cases under court jurisdiction. Donald was well managed by the staff's attending to appropriate behaviors. The staff appeared aware of each child's developmental level and diversified the program to meet individual needs.

The children appeared alert, interested, deeply involved in all activities, and well behaved.

Schedule in observed classroom

8:30-9:00 (uniform participation). The teacher conducted the circle time while aides prepared materials, welcomed late arriving children, and supervised Donald. Activities included singing; selecting a Child of the Day; counting to 50; and identifying shapes, colors, sizes, and letters. Donald was unable to attend to the circle time activities but was given manipulatives to play with at the table with an aide. On-task behavior was 97.81%.

9:00-9:49 (free choice). Children were free to choose to play bingo, finger paint, string beads, play with transportation toys, and play in the housekeeping area. Six children who had arrived too late for breakfast were served milk and cereal. The four adults interacted with the children by enriching and elaborating on what the children were doing. As a result, the children remained with each activity for a long time. On-task behavior was 99.24%.

9:54-10:03 (uniform participation). Following a transition during which the room was cleaned up and on-task behavior was 92.45%, the children sat on the rug for another circle time which included music, fingerplays, and a counting game. On-task behavior was 94.73%.

10:05-10:48 (uniform product). Following a two minute transition with 100% on-task behavior, the children were divided into three groups at three small tables. The first group completed a patterning activity and a shape coloring activity; the second group completed the patterning activity, a math drawing, and a discussion of ordinal numbers; the third group completed a cut and paste reading activity and a math ditto sheet. Each child's work was completed, checked, and praised. Teachers gave clear directions, gentle encouragement, and strong praise as the children worked. Of the off-task and disruptive observations, 73% were attributable to the behavior of Donald. One time the aide asked him to "Shhh," and another time the teacher said, "Donald, we don't holler inside." These were the only two times during the entire morning that children were told to be quiet. The noise level was never excessively high. Children were allowed to converse freely while doing their work. The first child completed his papers twelve minutes before the activity ended, but each child was allowed to go to the rug and look at a book when completed work had been checked and praised. On-task behavior was 96.49% and one hit was observed.

10:52-11:30 (outside). Following a transition with 100% on-task behavior, the children went outside to play.

Summary of observation and comments

Observations were made for a total of 180 minutes. Of that time 27.22% was spent in free choice with 98.87% on-task behavior, 0% off-task, 0.89% wandering, and 0.22% disruptive. Uniform participation occurred during 21.66% of the time, with 96.91% on-task behavior, 1.54% off-task, 0.61% wandering, and 0.61% disruptive. Uniform product occurred during 23.88% of the time with 96.49% on-task behavior, 1.50% off-task, 1.25% wandering, and 0.75% disruptive. Transitions occurred during 6.11% of the time with 96.96% on-task behavior, 0.75% off-task, 1.51% wandering, and 0.75% disruptive. Eating occurred during 0% of the observations. Outside play occurred during 21.11% of the time.

Of all observations, 97.54% were on-task, 0.92% off-task, 0.99% wandering, and 0.53% disruptive. One hit was observed.

This class had the highest on-task behavior and the second lowest time spent in transitions found in any of the classrooms visited.

Cognitive activities were well designed to meet developmental needs of children as determined by regular pretesting. The children were exceptionally enthusiastic when involved in cognitive activities.

The observer and two readers rated this center as good.

Center B

Size, staff, and children

Center B was licensed to care for 110 children ages 2 to 6. At the time of the observation 108 children were enrolled in the center, and 21 children were in the 4-year-old children's classroom and thus were included in the study.

The teacher and aide worked well as a team and had established routines which contributed to the smoothness of the operation. They both had competent manners, were always in control of the class, and maintained warm, freindly attitudes toward the children. The lead teacher had been employed at the center for six years, had completed 13 years of schooling, had not previously worked in another center, and had taken junior college courses relative to child care.

At 10:00 a.m. two adults were supervising a group of 21 children. The staff/child ratio was 1:10.5.

All 21 children present during the observation were alert, interested, and actively involved in the program. They played well together, used toys creatively, and were eager to take their turns to work on cognitive-type tasks with the teacher. Pretests had been used to determine which skills each individual child should be learning, and the curriculum was individualized to help each child reach his potential. Several children exhibited behavioral problems which were handled with time out.

Schedule in observed classroom

8:30-8:31 (transition). The eight children who had finished breakfast took their places on the rug for circle time with the teacher while the remaining children finished breakfast. On-task behavior was 100%.

8:31-8:59 (uniform participation). Circle time consisted of exercises, roll call, alphabet recognition, The Three Bears, counting to 100 by 1's and by 10's, and songs and finger plays to recorded music. Alphabet recognition and counting were done in unison rhythmic chants. When the children added an extra beat of their own to the chant, the teacher did not discourage them. On-task behavior was 94.31%, and five hits were observed.

9:01-9:31 (free play). During a two minute transition with 100% on-task behavior, the children were divided into two groups; one group in a room with the aide and the other in another room with the teacher. Children with the aide could choose to play with several types of manipulatives, play dough, puzzles, and the doll house. The aide spent time with each child for an individualized reading readiness lesson while the others were engaged in free play. In the other room, the teacher rotated from one to four children at a time to work on academic type skills with her at a table while the others in the room played in the block and housekeeping areas. As a child completed his work with the teacher, he went into the aide's room for free play and sent another child to take his place with the teacher. During the morning every child had an individual reading lesson and colored a ditto illustrating shapes. The more advanced children also practiced writing their names, identified pictures which were alike, and had an individual lesson in the Science Research Associates language development program. Children involved in academic activities were free to stand, to talk to each other and the teacher, to select colors, etc. Each activity was completed successfully, checked, and praised. Children were eager for their turns with this academic activity. On-task behavior was 92%.

9:32-9:56 (uniform participation). After a rapid transition from free play with 100% on-task behavior, a chapel service was conducted for three combined classrooms. The service consisted of enthusiastic singing, a Bible story dramatically told, and a closing prayer. On-task behavior was 100%.

9:56-10:36 (free play). After returning from the chapel in a one minute transition with 100% on-task behavior, the children continued in their free play and individualized work with staff members as detailed for the period 9:01-9:31. On-task behavior was 97.17%.

10:49-11:30 (uniform participation). After a 13 minute transition with 81.53% on-task behavior, the children had a change of schedule because it was raining outside. Another circle time was substituted for outside play. The children played Simon Says and musical chairs, sang and did finger plays, and had a parade with rhythm instruments. On-task behavior was 91.34% and 4 hits were observed.

Summary of observation and comments

Observations were made for a total of 180 minutes. Of that time 38.88% was spent in free choice with 96.28% on-task behavior, 1.35% off-task, 1.85% wandering, and 0.50% disruptive. Uniform participation occurred during 51.11% of the time, with 94.30% on-task behavior, 3.41%

off-task, 0% wandering, and 2.27% disruptive. Uniform product occurred during 0% of the time. Transitions occurred during 10.00% of the time with 91.11% on-task behavior, 7.69% off-task, 1.48% wandering, and 0% disruptive. Eating occurred during 0% of the observations. Outside play occurred during 0% of the time.

Of all observations, 94.76% were on-task, 2.99% off-task, 0.80% wandering, and 1.43% disruptive. Nine hits were observed.

Because the rain curtailed outside play, uniform participation was extended 41 minutes beyond the normal schedule. Had it not been raining, uniform participation would have occurred durin 38.33% of the time instead of during 51.11% of the time.

Academic type skills were diligently taught, but a minimum amount of each child's time needed to be spent in academics in order to achieve excellent results. The one-on-one tutorial format yielded high quality learning in a short amount of time.

The observer and the two readers rated this center as good.

Center C

Size, staff, and children

Center C was licensed to care for 110 children ages birth to 6. At the time of the observation 105 children were enrolled in the center, and 11 children were in the 4-year-old children's classroom and thus were included in the study.

The aide supervised the children from the time they arrived until the teacher arrived at 9:00 a.m., after which both the teacher and aide remained with the children except for short periods of time. For one four-minute period the children were unattended. Advance lesson planning had not been done by the staff; however, they were able to perform well.

The aide was calm, interested in the children, and efficient in performance of chores and management of children. The staff set few limits and no limit testing behavior was observed. Both adults did a great deal of hugging, touching, and praising of children; hugging time was held when each child lined up for a big hug from the teacher. The use of physical contact and endearing names followed the mothering model of a nursery teacher, although the dominant model followed was that of facilitator and elaborator.

The teacher had been employed at the center two years, had almost completed a junior college degree in child care, had not participated in inservice training programs or workshops, and had 30 years of experience in day care centers.

At 10:00 a.m. the staff/child ratio was 1:5.5 and the group size was 11.

Total enrollment in the class was 15; 11 children were present at the time of the observation. Although the teacher stated that many of the children had developmental, social, or emotional problems this was not apparent during the observation. The teacher commented that one boy was hyperactive, and she left the class to telephone his father because she felt it was apparent the child had not been given his morning dose of ritalin. Observation indicated the child was on-task from 8:40 to 10:18, at which time he entered into a minor mischief and was placed in time out. It was at 10:02 that the teacher made the telephone call. From 10:20 until 10:52 he remained at one table enjoying an educational puzzle, and from 10:52 to 11:28 he was off-task during 4% of 18 observations. Contrary to the impression given to the observer by the teacher, the children were able to work and play very well together during the observation time.

The children interacted with each other and with the staff in appropriate ways exhibiting an average amount of sharing, tattling, and temporarily refusing to play with a particular peer. Their behavior was good, although they did not demonstrate the degree of concern for each other exhibited by the children at Center D.

Schedule in observed classroom

8:40-8:48 (eating). Ten children ate breakfast in a relaxed atmosphere while conversing with the aide. After eating they were permitted to go down the hall unaccompanied to the bathroom. During this period of few limits on-task behavior was 100%.

8:48-9:32 (uniform participation). The children seated themselves in a circle on the rug and conversed as a group while the aide performed housekeeping chores until 8:54. As the aide joined the circle, she took a moment to inquire about the cause of one child's sad countenance. The children then chose two songs to sing, recited the Pledge of Allegiance, answered roll call, and recognized their names printed on cards. The teacher, who had arrived at 9:00 a.m., relieved the aide as director of circle time. After discussing the weather, each child stood encircled in the teacher's arms while telling the class anything he/she found interesting. The teacher did not hurry the children in this time but instead made comments and asked questions to aid in elaboration. After a few minutes of on-the-spot lesson planning between the teacher and aide, it was decided to add a lesson on the weather to the circle time. The activity concluded as children were told to name a zoo animal and then go to the tables to color. On-task behavior was 97.90% and off-task, 2.09%; no observations were made of wandering or disruptive behavior.

9:34-9:55 (uniform product). Following a smooth two minute transition the children sat at two tables, each table headed by an adult supervising the careful coloring of a ditto sheet. The ablest children were encouraged to outline the picture before coloring it, and all were instructed to "cover up all the white" before turning the paper over and drawing anything one chose. The adults utilized the opportunity to instruct a new child in the proper way to hold a crayon and another child in how to draw arms on a body. Two children at a time painted at an easel during this activity and during free choice. No child was requested to finish his paper by a specified time since whenever a child finished, he could engage in free choice activity. On-task behavior was 98.48%.

9:55-10:26 (free choice). Housekeeping, block play, manipulatives, and coloring were available for the children to select. During this activity and the next activity the teacher spent a total of 30 minutes with two children utilizing a kit of cognitively oriented games. On-task behavior was 99.35%.

10:28-10:50 (uniform participation). Following two minutes of picking up toys the children were permitted to choose between puzzles at the tables and blocks on the rug. The teacher and aide continued working with the same two children. On-task behavior was 95.86%.

10:56-11:30 (uniform participation). Following a six minute transition period during which toys were put away with 88.63% on-task behavior, the children sat on the rug listening to records. During this time both adults left the room for four minutes. A book of dinosaur pictures was then shown by the teacher, the children danced to a record, and the teacher led a game of Simon Says. On-task behavior was 93.12%.

Summary of observation and comments

Observations were made for a total of 170 minutes. Of that time 31.17% was spent in free choice with 97.81% on-task behavior, 1.81% off-task, 0% wandering, and 0.36% disruptive. Uniform participation occurred during 45.88% of the time, with 95.77% on-task behavior, 4.22% off-task, 0% wandering, and 0% disruptive. Uniform product occurred during 12.35% of the time with 98.48% on-task behavior, 1.51% off-task, 0% wandering, and 0% disruptive. Transitions occurred during 5.88% of the time with 89.09% on-task behavior, 10.90% off-task, 0% wandering, and 0% disruptive. Eating occurred during 4.70% of the observations with 100% on-task, 0% off-task, and 0% disruptive. Outside play occurred during 0% of the time.

Of all observations, 96.57% were on-task, 3.31% off-task, 0% wandering, and 0.11% disruptive. No hits were observed.

There was a high percentage of on-task behavior observed in this center and a negligible amount of disruptive behavior. Although 45.88% of the time was spent in uniform participation, the relaxed atmosphere and staff flexibility prevented regimentation during uniform participation and encouraged individual interpretation and creativity in the activities. For example, during one segment of uniform participation all children danced to a record, but each child was free to dance wherever and however he wished. This was in strong contrast to centers requiring extreme conformity to teacher-imposed regulations during periods of uniform participation. Total time spent in transitions was short even though the bathroom was down the hall. However, since children were permitted to go to the bathroom unattended, no time was needed for lining up.

Conversations between the teacher, aide, and observer indicated advance lesson planning had not been done. The teacher strongly stated her adherence to individualizing instruction based on the wide range of developmental levels in her class, but in practice she spent so much time with just a few individuals that the others did not have a turn for an individual lesson. Although the curriculum was purportedly based on developmental level, several of the children appeared to be able to perform much more advanced activities than were provided for them.

The observer and the two readers rated this center as good.

Center D

Size, staff, and children

Center D was licensed to care for 105 children ages 16 months to 12 years. At the time of the observation 115 children were enrolled in the center, and 16 children were in the 4-year-old children's classroom and thus were included in the study.

The climate of the room was established by the vivacious, caring, encouraging, lead teacher, whose example was generally followed by the aide and the children. Also present was a "grandmother" whose salary was paid by a federal program for aid to the elderly. The grandmother spent a total of 16 minutes actively involved in classroom affairs, and the remainder of the time she was seated and observing children with a pleasant expression on her face or reading a magazine. The teacher and aide were at all times interacting with the children by touching, assisting, enriching, encouraging, praising, guiding, or teaching them. Even when involved with a particular child, the teacher was aware of the activities of the others in the class, especially of a retarded child who was progressing well socially and cognitively under the guidance of the staff.

The teacher was a graduate of the child care program at the junior college, had worked at the center four years, and had not had previous employment in child care related positions.

The grandmother arrived at 8:50 a.m., the aide at 9:04 a.m., and the 16th child at 9:50 a.m. At 10:00 a.m. three adults were supervising a group of 16 children. The staff/child ratio was 1:5.33.

Sixteen children were present during the observation. Except during a one minute period when four hits and one pinch were exchanged in two flurries of activity, the children socialized and shared extremely well.

The warmth of the staff was reflected in the children's caring attitude toward each other and was especially evident in their gentle and encouraging treatment of a retarded classmate. The teacher followed the nursery model by being a facilitator, encourager, and enricher.

Although socially the children were well advanced, and the staff aided the retarded child in reaching her cognitive potential, there was no comparable thrust by the staff to aide the normal children to achieve cognitively.

Schedule in observed classroom

8:32-9:24 (free choice). Twelve children, supervised only by the teacher, were permitted to move freely from one activity to another. Available activities included flannel board, table top painting with shaving cream, easel painting, coloring, chalk board, housekeeping, blocks, and manipulatives. The teacher assisted children in using the materials and utilized every opportunity to conduct an informal lesson, e.g., "Let me watch you make three more pretty large round circles in the white shaving cream." The children generally remained with one activity a long time. On-task behavior was 94.56%.

9.34-10:11 (uniform participation). Following a 10 minute transition during which the children put away toys and took their places on the rug with 96.42% on-task behavior, the teacher conducted a circle time which included roll call, calendar, singing, counting to 10, color recognition, finger plays, and records. For the final 11 minutes of the period the children divided into two groups, one with the teacher and one with the aide, to discuss the theme of the week, transportation. The transportation lesson had been well prepared in advance as indicated by the similarity of presentation by the teacher and the aide and by the availability of appropriate pictures. During the transportation lesson verbalization by the children was promoted. On-task behavior was 93.87%.

10:14-10:32 (uniform product). Following a three minute transition with 93.75% on-task behavior, the transportation theme was further carried out as children cut out predrawn shapes, glued them to construction paper to form a sailboat, and decorated the background by coloring. Children needing assistance in cutting were encouraged and helped but the staff did not cut the shapes for them. As soon as a child had completed the project and had been praised by the teacher, he went to the rug and looked at books. On-task behavior was 97.22%.

10:34-11:14 (uniform participation). Following a two minute transition, during which on-task behavior was 100%, the children sat in a circle on the rug. Rainy weather had caused the usual outdoor period to be cancelled and replaced with singing, a transportation story, a parade, and an indoor game with a record to which each child performed. On-task behavior was 95.23%. The only hitting behavior of the day occurred in two quick flurries with four hits and a pinch.

11:14-11:27 (transition). Hand washing for four children at a time was supervised by the teacher while the aide supervised children listening to records. After all hands were washed, the teacher set the table while the aide continued, with difficulty and a raised voice, to supervise children. On-task behavior was 91.66%.

Summary of observation and comments

Observations were made for a total of 174 minutes. Of that time 29.37% was spent in free choice with 94.56% on-task behavior, 0% off-task, 5.43% wandering, and 0% disruptive. Uniform participation occurred during 42.93% of the time, with 94.73% on-task behavior, 4.69% off-task, 0.18% wandering, and 0.37% disruptive. Uniform product occurred during 10.16% of the time with 97.22% on-task behavior, 1.38% off-task, 0.69% wandering, and 0.69% disruptive. Transitions occurred during 15.81% of the time with 93.93% on-task behavior, 4.54% off-task, 1.51% wandering, and 0% disruptive. Eating occurred during 0% of the observations. Outside play occurred during 0% of the time.

Of all observations, 94.60% were on-task, 2.98% off-task, 1.98% wandering, and 0.22% disruptive. Six hits were observed.

Had it not been raining, the time spent in uniform participation would have been reduced by 40 minutes to 20.33% of the time.

The well developed social responsibility of the children was reflected in the low percentage of disruptive behaviors and the high percentage of on-task behaviors.

The cognitive activites were appropriate, well planned, and enjoyed. Only the retarded child appeared to be challenged to reach full cognitive potential. The teacher served as a facilitator, enricher, and elaborator during periods designed to enhance cognitive abilities.

The observer and the two readers rated this center as good.

Centers Enrolling 60-99 Children

Center E

Size, staff, and children

Center E was licensed to care for 90 children ages birth to 6. At the time of the observation 82 children were enrolled in the center, and 9 children were in the 4-year-old children's classroom and thus were included in the study.

One adult supervised nine children during the observation period. She related to the observer that she was gradually moving the children from their former schedule of playing all day to a cognitively oriented program. She acknowledged that maintaining discipline was difficult for her but attributed the difficulty to each of the children's being either the youngest or the only child in a family. Observation indicated the teacher made rules which she could not enforce and made repeated threats she did not keep. The model she wished to follow was that of primary grade teacher, but her appearance was one of utter frustration.

The teacher held a teaching certificate in elementary and early childhood education, had worked at Center E for five months, three weeks of which had been in the 4-year-old classroom, and had previously worked three months at a franchise center.

At 10:00 a.m. one teacher supervised a group of nine children. Staff/child ratio was 1:9.

Nine of the 10 enrollees were present during the observation. Behavioral problems exhibited by the children included tattling, refusing to play with each other, calling each other names, being unsympathetic toward each other, and using physical aggression against peers and teacher. The teacher set unreasonable limits and was unable to consistently maintain them; the children consequently exhibited much limit testing behavior and were highly verbal and creative in the methods they used to outwit the teacher.

Schedule in observed classroom

8:54-9:04 (uniform participation). After the children spent four minutes (43.75% on-task) coming from the breakfast room to their class, changing coats, and taking a seat on the rug, the teacher conducted circle time involving a discussion of the calendar and weather, counting the present boys and girls, and counting a comparable number of beads. Only one child remained on-task during the entire activity; others left the rug, tussled with each other, or played with toys stacked on an adjacent low shelf. On-task behavior was 70%.

9:04-9:12 (transition). This transition from circle time to uniform product was lengthy because the children were required to wait quietly while the teacher gathered the needed supplies. On-task behavior was 93.75%.

9:12-9:46 (uniform product). While the teacher showed the children at the first table how to color and cut a ditto sheet airplane, the children at the second table played with play dough until the teacher was able to teach them how to make airplanes. During this entire activity the teacher constantly reminded the children that they were not permitted to talk or leave their seats. Nineteen times she warned them that she would take away the airplanes if they could not be quiet. No airplanes were taken, and only one child was quiet the entire time. As each child completed an airplane, he was sent to the rug where he was allowed to share one small box of blocks but not to touch any toys on the adjacent shelves. The allowed blocks were adequate for no more than two children, and therefore caused additional off-task behavior and threats. After twelve minutes of arguing, the teacher permitted the children to use additional toys. On-task behavior was 75.67%. After eight of the children had completed the airplanes, all were required to put their heads on the tables for five minutes before going to another building for toileting and then to the auditorium. During this 13 minute transition on-task behavior was 40.74%.

9:59-10:08 (uniform participation). During this period the children were allowed to run with their airplanes on an area rug in the auditorium. After the children regularly exceeded the limits and were threatened with loss of airplanes nine times in a six minute period, the teacher took the airplane from one child. This child cried, kicked the teacher, and was sent to another area of the room. This disruption led the teacher to require all children to put their airplanes in their lockers. Eight minutes after the incident the center director took the misbehaving child to her office for time out. On-task behavior was 77.77%. Seven hits were observed.

10:08-10:20 (transition). The children sat on the rug while the teacher passed out cars for free play. The transition was lengthy because the children would not stay on the rug, and the teacher could not decide which child should be given which car. On-task behavior was 36.11%.

10:20-10:36 (free choice). Children played with toy cars and two garages on the rug. They had difficulty sharing the garages and tended to use parallel play rather than cooperative play. On-task behavior was 81.94%.

10:36-10:44 (transition). Children were given conflicting instructions while the teacher selected an activity to introduce. When she chose to read a story, it was necessary for the children to line up and accompany her to another classroom to get the book and then return to the auditorium. On-task behavior was 59.25%.

10:44-10:57 (uniform participation). During this period the teacher began to read a story but stopped after one minute because the children were not listening. She switched to a finger play, hokey pokey, and teaching a new song but did not complete any of these activities. The children then spontaneously began singing and completed a song on their own. On-task behavior was 66%; four hits were observed.

11:00-11:30 (outside). Following a three minute transition for putting on wraps and lining up (on-task 66.66%), the children went outside for the remainder of the observation period.

Summary of observation and comments

Observations were made for a total of 160 minutes. Of that time 10.0% was spent in free choice with 81.94% on-task behavior, 13.88% off-task, 4.16% wandering, and 0% disruptive. Uniform participation occurred during 20.0% of the time, with 70.50% on-task behavior, 25.17% off-task, 0% wandering, and 4.31% disruptive. Uniform product occurred during 21.25% of the time with 75.16% on-task behavior, 24.16% off-task, 0.67% wandering, and 0% disruptive. Transitions occurred during 30.0% of the time with 52.23% on-task behavior, 44.77% off-task, 0% wandering, and 2.98% disruptive. Eating occurred during 0% of the observations. Outside play occurred during 18.75% of the time.

Of all observations, 66.66% were on-task, 30.48% off-task, 0.71% wandering, and 2.13% disruptive. Eleven hits were observed.

Although the toileting facilities and auditorium were not contiguous to the classroom, this is not what caused the transitions to be lengthy. Transitions, occupying a larger percent of the time than any other activity, were lengthy because the teacher had not made advance lesson plans, did not have needed equipment at hand, had not been able to establish routines for moving, and had given unclear directions.

Off-task behavior was a function of lack of advance planning by the teacher, unrealistic and inconsistent limit setting, and failure by the teacher to follow through with promised consequences of inappropriate behaviors.

Very little time was spent in free choice activities, only 10%, yet the children fulfilled their need to make choices by being off-task a high percentage of the day. The only activity with a higher than 70.50% on-task was free play, yet the teacher would not let the children continue in it. Cognitive activities were meaningless as executed.

The observer and two readers classified this center as unsatisfactory.

Center F

Size, staff, and children

Center F was licensed to care for 120 children ages birth to 6. At the time of the observation 80 children were enrolled in the center, and 9 children were in the 4-year-old children's classroom and thus were included in the study.

The teacher had prepared many excellent home-made learning activities and games; this led the observer to expect that teaching would be conducted within the framework of play. However, the games were not used in the expected manner, and the predominant mode of presentation of information was with drill. The rules posted on the wall included "Show your best manners at all times"; "We don't hurt nobody"; "Raise your hand to speak"; "Listen when teacher talks"; "Walk in the classroom, in the hall and on the playground"; "Always use inside voice in the classroom"; "Keep your classroom clean." In practice, the teacher especially tried to enforce the rule to "Listen when teacher talks." She taught by talking almost the entire time in a loud, rapid manner.

She had been employed in the center for three years, was a college graduate, and was certified to teach elementary school in the Phillippines. She spoke sincerely of her love of teaching and obviously spent a great deal of time and effort in preparation for each day's class. She was embarrassed at being observed when she had not yet had time to decorate her new classroom and showed the observer attractive pictures of her former classroom.

The one teacher was supervising a group of nine children at 10:00 a.m. The staff/child ratio was 1:9.

The nine children were approached by the teacher as a group, rather than as individuals; this seemed to produce a great similarity among most of the children. Two boys, however, did stand out as being disruptive and as limit testers. Three times when children fell, the others laughed and the teacher hollered. The only instance of children's caring for each other occurred when a sleepy child was petted and defended by another child.

Seven times children asked to play with play dough but were always told that they could do so after they learned their lessons. Even though the teacher had made interesting learning games, "lessons" were treated as a chore to be gotten through. Play dough was never used during the observation even though "lessons" were completed.

Schedule in observed classroom

8:30-8:56 (free choice). The group under observation had changed classrooms the day before. The teacher asked children to sit on the rug to play with beads and popsicle sticks while she finished unpacking materials. On-task behavior was 80%.

8:56-9:54 (uniform participation). Following a transition with 73.68% on-task behavior, a long circle time was conducted with opening exercises, counting, singing, cleanliness check, nursery rhymes, exercises, and shape identification. Using a very loud voice, the teacher continually reminded children to speak in "inside" voices. The pattern used was one of a memorized drill and the format was completely determined by the teacher. On-task behavior was 84.73%. Eight hits were observed.

9:56-10:01 (uniform product). Following a two minute transition during which on-task behavior was 100%, the children each folded and cut a piece of paper to make a snowflake design. Children who had difficulty cutting and folding had their snowflake made by the teacher who was trying to hurry up the activity. On-task behavior was 72.22%.

10:03-10:31 (uniform participation). Following a two minute toileting transition (on-task was 84.84% and two hits were observed) all center children ages two to six met in the auditorium for a chapel service of music, Bible story, and prayer. On-task behavior was 100%.

10:38-10:54 (outside). Following a seven minute disorganized transition during which the teacher was very agitated as children put on coats and lined up with 81.48% on-task behavior and one hit, the children went outside to play.

11:02-11:13 (free choice). After the third toileting transition in two and a half hours was conducted with only 38.88% on-task behavior, the children were allowed to select what they wanted to play with from a limited array of toys. Only one child remained with the same activity the entire 11 minutes, and the majority of the children changed activities five times during 11 minutes. The teacher seemed nervous in a situation where children could make choices, and she did nothing to enrich or facilitate their play. On-task behavior was 90.47% and three hits were observed.

11:13-11:20 (transition). With 70.37% on-task behavior and four hits, a transition was conducted for cleaning up toys.

11:20-11:30 (uniform participation). Two commercially recorded stories were heard as the teacher showed the class corresponding pictures in a book. One child, obviously sleepy-eyed, put his head in another child's lap and was told by the teacher that he must sit up to listen. Even when another child tried to explain to the unhearing teacher that Thomas was very tired, she insisted that he sit up. Twice he was reprimanded when his eyes closed and his head dropped while he was sitting up. One child was chastised for buttoning his shirt cuff during the story. On-task behavior was 70.37%, and one hit was observed.

Summary of observation and comment

Observations were made for a total of 180 minutes. Of that time 15.0% was spent in free choice with 86.11% on-task behavior, 6.48% off-task, 4.62% wandering, and 2.77% disruptive. Uniform participation occurred during 27.33% of the time, with 85.85% on-task behavior, 11.11% off-task, 0.50% wandering, and 2.52% disruptive. Uniform product occurred during 2.77% of the time with 72.22% on-task behavior, 0% off-task, 22.22% wandering, and 5.55% disruptive. Transitions occurred during 26.11% of the time with 77.54% on-task behavior, 20.33% off-task, 0.42% wandering, and 1.69% disruptive. Eating occurred during 0% of the observations. Outside play occurred during 8.88% of the time.

Of all observations, 82.98% were on-task, 13.06% off-task, 1.58% wandering, and 2.37% disruptive. Nineteen hits were observed.

Excessive time was spent in transitions because the teacher had difficulty getting children to line up, and because the entire class went down the hall to the toilet three times during the observation period. A five minute uniform product activity was surrounded by 12 minutes of transition. The 16 minutes spent in free choice activity was longer than usual because the children were allowed to play while the teacher arranged supplies in the new classroom. According to the daily schedule posted on the wall indoor free play should have occurred only from 11:40-11:50. The high percentage of off-task behavior appeared to be a function of the limited freedom given the children and of the rapid-fire, drill type presentation.

Cognitive lessons predominated but were presented in a verbal, rather than in a "hands on" manner. The children appeared to have learned little more than the identification of shapes and of some colors during the year.

The observer and two readers rated this center unsatisfactory.

Center G

Size, staff, and children

Center G was licensed to care for 80 children ages 2 to 6. At the time of the observation 73 children were enrolled in the center and 21 children were in the 4-year-old children's classroom and thus were included in the study.

A lead teacher, three aides, and two foster grandmothers supervised the children. They all functioned strictly as monitors and supervisors of the children's behavior, giving frequently repeated instructions to "Shhh!," "Shut up!," "Stop that!," and "Be quiet, cross your legs, and put your hands in your lap!"

The lead teacher had been employed at the center for 14 months, had completed three years of college majoring in elementary education, and had previously worked in another center.

At 10:00 a.m. six adults were supervising a group of 21 children. The staff/child ratio was 1:3.50.

All of the 21 children were alert, involved, and happy during the showing of a movie. Most of them were alert and involved, but they did not appear especially happy while actively working on a ditto sheet or singing. During the remainder of the observation period they were generally obedient but appeared bored, and showed no enthusiasm or interest.

Schedule in observed classroom

8:50-8:59 (transition). While waiting for the last four children to finish breakfast, the remaining 17 children sat in chairs at four tables. Those who had finished eating were required to sit up straight but were permitted to converse quietly. On-task behavior occurred during 91.91% of the observation.

8:59-9:11 (uniform participation). The children sat on the rug while the teacher conducted a circle time which included roll call, calendar, and a song. On-task behavior occurred during 69.04% of the observation.

9:11-9:20 (transition). The children moved from the rug to the table quickly as directed but then waited in their seats, having been instructed to keep quiet, sit up, and put their hands in their laps. At the time the children sat down a ditto sheet and blue crayon were at each place at three of the four tables, but children were nonetheless required to wait nine minutes before beginning. On-task behavior was 84.52%.

9:20-9:48 (uniform product). During this period each child completed three dittos. No instruction was given with the dittos, only supervision. No talking was permitted during the activity, and 45.91% of the time children sat waiting for the staff to give them the next ditto. On-task behavior, as defined as either working on the ditto or sitting quietly, occurred during 88.09% of the observation.

9:48-10:20 (transition). During this 32 minute transition children were required to sit on the rug without talking and with hands folded while the staff tried to correct a malfunctioning movie projector. One child arrived late but was not greeted by the staff and did not take his coat off all morning. On-task behavior was 82.91%, and 18 hits were observed.

10:20-10:28 (uniform participation). The children sat on the rug and watched a sound cartoon movie. On-task behavior was 100%.

10:28-10:32 (transition). The children waited while the teacher threatened not to show another movie unless they sat like Indians, were quiet, and kept their hands in laps. On-task behavior was 45.45% and one hit was observed.

10:32-10:38 (uniform participation). During a sound cartoon movie the children were admonished to "shut up," even though on-task behavior was 100%.

10:38-10:45 (transition). The children stood in line waiting a turn to use the bathroom and after using it each child sat on the edge of his cot which had just been set in place by staff. One of the grandmothers swatted a child because he had his hand on another child. Physical punishment is illegal in day care centers. On-task behavior was 84.52%.

10:45-11:14 (uniform participation). A long playing recording of children's songs was played and the children, each sitting on a cot, could sing along if they chose to. Adults sang and made repeated admonitions to children to sit up straight on cots and not talk to each other. On-task behavior was 92.69%, and five hits were observed.

11:14-11:24 (transition). During this transition children sat quietly at the table with their hands in their laps until all plates had been served. The staff continually reminded children not to talk. On-task behavior was 100%.

11:24-11:30 (eating). Children followed directions to "Open your mouth only to put food in it; the rest of the time shut up." On-task behavior was 100%.

Summary of observation and comments

Observations were made for a total of 160 minutes. Of that time 0% was spent in free choice. Uniform participation occurred during 34.37% of the time, with 89.45% on-task behavior, 9.52% off-task, 0.85% wandering, and 0.34% disruptive. Uniform product occurred during 17.50% of the time with 88.09% on-task behavior, 11.22% off-task, 0% wandering, and 0.68% disruptive. Transitions occurred during 44.37% of the time with 85.75% on-task behavior, 13.98% off-task, 0% wandering, and 0.26% disruptive. Eating occurred during 3.75% of the observations with 100% on-task, 0% off-task, and 0% wandering. Outside play occurred during 0% of the time.

Of all observations, 87.50% were on-task, 11.87% off-task, 0.30% wandering, and 0.36% disruptive. Twenty-four hits were observed.

The lengthy transitions were not characterized by unruly behavior but rather by children fairly well following instructions to be quiet and sit still.

Along the walls of the classroom was all the equipment needed for excellent activities with housekeeping, art, manipulatives, puzzles, blocks, rhythm band instruments, records, and games. Yet no child ever reached out and touched one of these items. The only "hands on" activity of the day involved the three ditto sheets, a small amount of paste and a blue crayon. No free choice activity occurred and the manner of children's participation in all activities was rigidly prescribed.

Although 24 hits were observed they were all light and not meant to hurt but appeared instead to be escapes from boredom. Disruptive behavior was at an acceptable level. The observer overheard an aide tell a child to behave or he would be beaten after lunch and saw the grandmother strike a child. Two tightly rolled and taped newspapers were observed on a shelf.

The blessing that was recited before lunch contained a line thanking God for the good time that was had at play. However, no play had been observed, nor had any affectionate remarks or praise been given to the children, and no staff member had conversed with the children.

None of the activities which the staff conducted for cognitive growth was properly executed.

The observer and the two readers rated this center as unsatisfactory.

Center H

Size, staff, and children

Center H was licensed to care for 91 children ages 2 to 6. At the time of the observation 65 children were enrolled in the center, and 18 children were in the 4-year-old children's classroom and thus were included in the study.

The observer was told by the secretary that the regular teacher was absent for the day and replaced by a substitute. The suggestion was made, but not followed, that the observer therefore view another classroom. The substitute appeared thoroughly familiar with the first and last names of all children and with the routine. At no time did the adults or children in the class indicate that a staff substitution had been made or that the routine was unusual. The observer could not ascertain for certain which adult was the teacher and which was the aide.

Only during one two-minute period did any adult converse with children. All other adult comments involved harshly or disinterestedly given directions or criticism. No "Please," "Thank you," or smile accompanied any directions or criticisms. No child appeared to be a teacher's pet and all were treated with equal disinterest. The adults set limits on all behavior, even including exactly how a child was to sit in a chair.

One adult said that she was the lead teacher and had completed high school, had taken one college course in child psychology, and had worked six months in another center but was a new employee in the present center.

At 10:00 a.m. two adults were supervising a group of 18 children. The staff/child ratio was 1:9.

Eighteen children were in attendance during the observation. During most of the morning the children appeared tired and disinterested, and their eyes and attention were unfocused. The climate of the room was stern and disinterested as established by the staff and boring as lived by the children. Because children's verbalizations, "hands on" activities, and physical activity were extremely restricted by staff, the observer was unable to verify by observation the suspected resultant delay in cognitive development and language attainment.

Schedule in observed classroom

8:30-8:39 (uniform participation). The 4- and 5-year-old children were combined in the kindergarten classroom watching Captain Kangaroo on television. On-task behavior was 100%.

8:39-8:50 (transition). The girls lined up and went to the bathroom while the boys sat quietly at tables; then the two groups reversed activities. On-task behavior was 100%.

8:50-8:52 (uniform participation). The children sat on the rug Indian fashion in a circle while the teacher rolled a ball to eight randomly selected children. Not one word had been spoken by any child after 8:44. On-task behavior was 100%.

8:52-8:58 (uniform participation). Following a two-minute transition period (100% on-task) during which the children quietly moved from the rug to the tables and waited quietly in their chairs, opening exercises were conducted. The Pledge of Allegience was recited, "My Country 'Tis of Thee" was sung, a poem was recited, and the roll was called with 100% on-task behavior.

9:02-9:14 (uniform participation). A second staff member arrived, and all the children sat quietly for a four minute transition while the two adults conferred, then children recited the alphabet and counted to 30 in unison. Each child was then required to stand in front of the class and count while classmates were to "Hold still, don't talk, listen." From the time the observation began at 8:30 until 9:02, no child had been off-task, wandering, or disruptive. During this individual recitation period, however, on-task behavior was 46.29%, off-task 52.77%, and disruptive 0.92%. Many children closed their eyes and rested their heads on the table; some watched activities in adjoining classrooms, whispered, or day dreamed, but no one left a chair. On-task behavior, as defined by the teacher, prescribed that one's spine must be flat against the chair back, hands folded, feet flat on floor, and eyes on the reciter. In all but one instance the off-task behavior was performed in a quiet way.

9:19-9:31 (uniform participation). Following a five minute transition during which teachers issued conflicting directions as they tried to decide on the next activity, an appropriate sing along record was played which gave directions for the children to move based on the color chairs in which they were sitting. However, the children were told to listen but not to sing and to sit still while successive groups of four children made the required movements. No feedback was given to children who did not recognize colors and were therefore unable to correctly follow the directions. Two girls, grinning at each other, made faint body and mouth movements to the record when the class had been told to sit still. This activity was followed by one minute of recorded music with all children allowed to sing and make appropriate motions. It was with big smiles and much enthusiasm that all participated for that minute. On-task behavior occurred during 78% of the observations. Four hits were observed.

9:32-9:59 (uniform product). Following a one minute transition during which on-task behavior was 100%, ditto sheets were passed out with instructions to color each of the small pictures a specific color. Some children quickly but incorrectly completed the activity and were told to be quiet, put hands in laps, and wait until all had finished. During 46.29% of the observations children had completed the dittos and were waiting for their peers to finish. When the last paper was finally completed, the teacher quickly held up her own completed ditto and stated, "If your paper looks like mine you followed directions; if it doesn't, you need to work more on your colors." Children were not assisted in performing the task correctly or given feedback when incorrect. On-task behavior occurred during 89.81% of the observations.

9:59-10:04 (transition). After being instructed to go to the rug and sit in a circle the children became moderately spontaneous, giggling and disobeying for four minutes before the adults were able to restore order. At no other time was mass spontaneity observed although children did a moderate amount of whispering to each other. However, this spontaneous action was actually no wilder than would normally be expected and tolerated in all but one other of the 17 centers observed. On-task behavior was 29.62%.

10:04-10:27 (uniform participation). The teacher read aloud 1½ stories appropriate for older children. Only after extreme prompting were children able to answer questions at the conclusion of the story. On-task behavior occurred during 54.54% of the observations. Three hits were recorded.

10:35-10:41 (uniform product). An art activity followed a lengthy eight minute transition while children moved quickly from rug to table and waited for teachers to collect supplies. Children were told to use their imaginations to create a picture about the story they had just heard. This "creative" art project was accomplished in this way: The teacher placed paste on each child's paper; the child spread the paste on the paper, took one handful of colored rice from a container passed by the teacher, and emptied it onto the sticky paper. One child who asked to select a particular color of rice was told to "Go sit down and be quiet." In 30% of the observations children had completed the project and were waiting for peers to finish. On-task behavior was 100%.

10:41-10:53 (transition). During a 12 minute transition period half of the children went to the bathroom while the other half had to sit up straight in chairs. Two boys rebelled and placed their feet on the table. When the second group went to the bathroom, the teacher conversed casually with the other group. This two minute conversation was the only instance of teacher/child conversation observed. During this period on-task behavior was 71.87%.

10:53-11:00 (uniform participation). Since seven minutes of inside time remained, the teachers decided to again play the record for the color game with four children at a time participating. On-task behavior was 83.82%.

11:02-11:30 (outside). After a two minute transition the children went to the playground. Girls in dresses were not allowed on the monkey bars because their panties would show.

Summary of observation and comments

Observations were made for a total of 176 minutes. Of that time 0% was spent in free choice. Uniform participation occurred during 43.91% of the time, with 69.26% on-task behavior, 29.43% off-task, 0% wandering, and 0.81% disruptive. Uniform product occurred during 22.36% of the time with 92.37% on-task behavior, 7.29% off-task, 0% wandering, and 0.34% disruptive. Transitions occurred during 33.78% of the time with 86.02% on-task behavior, 13.98% off-task, 0% wandering, and 0% disruptive. Eating occurred during 0% of the observations. Outside play occurred during 15.9% of the time.

Of all observations, 79.17% were on-task, 20.33% off-task, 0% wandering, and 0.48% disruptive. Seven hits were observed.

As compared to children in all other centers visited, the children at Center H appeared to be the most repressed and apathetic. The children were given no freedom, made no choices, and never played while inside. Not only was a large block of time wasted during transitions, but most of the time spent in uniform participation and uniform product was actually wasted. No appropriate cognitive activities were planned. Those cognitive activities which were planned were inappropriate in execution as well as in planning.

The observer and the readers rated this center as unsatisfactory.

Center I

Size, staff, and children

Center I was licensed to care for 104 children ages 2 to 12. At the time of the observation 61 children were enrolled in the center, and 13 children were in the 4-year-old children's classroom.

An aide supervised children until 9:18, at which time the teacher arrived. During the remainder of the morning both adults remained with the children. Until the teacher arrived, the aide conversed first with another staff member and then with the children as one would with an adult. After the teacher arrived the two held repeated conversations with each other but no informal conversations with the children. Since the staff did not facilitate, elaborate, redirect, or "mother," and spent only four minutes teaching, it was difficult to ascertain what model they were following. During 44% of the observation period the teacher and the aide were either in conversation with each other or involved in record keeping. During gross motor activities performed to directions given on records both adults participated in the exercises in a boisterous manner and ignored the children.

The teacher was a new employee of the center, had completed 13 years of schooling, and had taken courses related to child care.

At 10:00 a.m. two staff members supervised a group of 14 children. The staff/child ratio was 1:7.

The 14 children in attendance were observed to be enthusiastic, argumentative, highly verbal, and intolerant of each other's mistakes. The highest cognitive type skill demonstrated was the ability of six children to count to eight. Although the staff generally either entered boisterously into gross motor activities with the children or ignored them completely, few children attempted to gain additional involvement with the adults.

Schedule in observed classroom

8:30-8:36 (eating). The 3- and 4-year-old children and their two aides ate with the children in the 4-year-old children's classroom. The aides ate with the children but conversed and joked with each other about personal matters and about the children. On-task behavior was 100%.

8:36-8:52 (transition). During this lengthy transition children used the bathroom, put on coats, lined up to go outside, returned to the rug to sit in a circle, changed from a circle to mats, lined up, sat down, and lined up again. The conflicting directions appeared to have been caused by the aide's indecision as to what activity to conduct. The children seemed happy amidst the confusion and at one point spontaneously followed a child's lead in all singing "Silent Night." They went upstairs to the toilets unattended which is against licensing requirements. On-task behavior during this transition was 90.54%.

8:52-9:04 (outside). The aide observed the children on a well-equipped playground.

9:08-10:00 (uniform participation). Following a four minute transition during which children used the toilet, hung up their coats, and took their places on individual mats (100% on-task), the aide led the children in the Good Morning song and a discussion of the weather. At 9:18 the teacher arrived and took over the circle time with four minutes of cognitive activities in food classification, color and shape recognition, and counting to eight. The next 36 minutes were spent in gross motor activities which included exercising and dancing to records, catching a large and small ball in a testing situation, and marching. When a child was unable to catch a ball, the children followed the staff in laughing and teasing. The adults joined the children in the boisterous activity and imposed no limits except during the ball catching period. Although the teacher explained that the children were being tested on ball catching ability and their scores were recorded, the speed of the toss and distance between thrower and catcher varied widely. A test of marching ability was also made, but criterion for passing the test was unclear. During this period on-task behavior was 85.99%. Four hits were observed.

10:00-10:56 (free choice). Children were dismissed from the previous activity with directions to "Do whatever you want to now while I write down the names of kids who couldn't even catch a ball." Children played with housekeeping items, cars, and puzzles. No boundaries or limits were established. At one point four boys were jumping on puzzles, one boy had pulled a girl's pants down, and a child was cutting a semicircle in the air with a broom handle. In spite of the noise level and the safety hazard, the children appeared happy and the staff mainly oblivious. No attempt was made to provide direction to the children classified as wandering, but three disruptive children were placed in time out toward the end of the activity. The teacher led the children in taunting one hurt and crying child with "Cry fever" after which the child spit on the teacher and had a tantrum; the teacher then took the child to the hall where the observer was unable to view what transpired. Highly imaginative role playing was done by the children in housekeeping. Two girls played quietly with jigsaw puzzles on the rug in the middle of children engaged in rough play with cars. During this period on-task behavior was 89.06%. Because the children played without the usual limit stting, behavior which was considered on-task here would have been considered disruptive in other centers. Sixteen hits were observed.

11:10-11:30 (outside). Following a 14 minute transition with 30.66% on-task and nine hits during which children picked up toys and the staff gave marshmallows to children whom they thought, incorrectly, had done the most cleaning, the children went outside to play.

Summary of observation and comments

Observations were made for a total of 180 minutes. Of that time 31.11% was spent in free play with 89.06% on-task behavior, 0.52% off-task, 4.68% wandering, and 5.72% disruptive. Uniform participation occurred during 28.88% of the time, with 85.99% on-task behavior, 10.74% off-task, 0% wandering, and 3.25% disruptive. Uniform product occurred during 0% of the time. Transitions occurred during 18.88% of the time with 67.58% on-task behavior, 30.76% off-task, 0.54% wandering, and 1.09% disruptive. Eating occurred during 3.33% of the observations with 100% on-task, 0% off-task, and 0% disruptive. Outside play occurred during 17.77% of the time.

Of all observations, 84.21% were on-task, 9.97% off-task, 2.08% wandering, and 3.72% disruptive. Twenty-nine hits were observed.

The staff had been instructed to pretest the children in certain gross motor skills but did not appear to have the necessary skills in curriculum planning to translate the results of the pretest into the planning of relevant learning experiences.

Because the staff issued such loose directions by which on-task behavior could be defined, the 84.21% of the total time which was spent on-task was actually more chaotic than the statistic indicates. However, considering the lack of limit setting and supervision, the children were relatively happy and well behaved. Four minutes of the morning were spent in appropriate cognitive activities.

The observer and two readers rated this center unsatisfactory.

Centers Enrolling 30-59 Children

Center J

Size, staff, and children

Center J was licensed to care for 75 children ages birth to 6. At the time of the observation 59 children were enrolled in the center, and eight children were in the 4-year-old children's classroom and were thus included in the study.

The rules posted on the wall were indicative of the teacher's permissive attitude toward the children. "Play quietly," "Stay in area," and "Take turns" were the only posted rules. Children's conversations were not usually discouraged by the teacher, and the children were careful to keep voices low as they obeyed the rule to "Play quietly." "Take turns" was indicative of the children's general attitude of politeness in social relationships and in the use of formalized good manners. No child tested the "Stay in the area" limit. The teacher had apparently successfully communicated the major rules.

The teacher was soft spoken, calm, well-organized, and low key in her interactions with children. Her interactions and conversations did not occur at a high rate, but she never ignored the children. Although she often told the children not to talk, it appeared that this direction was given to impress the observer, and was not an example of the teacher's normal style. Lesson plans for the day were posted on the wall but not carried out as planned.

The teacher had been employed at the center for three months, had completed the twelfth grade, had previously worked one year in another center, and had taken child care courses in high school.

At 10:00 a.m. one adult supervised a groups of eight children. Staff/child ratio was 1:8.

Eight children were in attendance during the observation. They ranged in age from 4 to 6 years old. Unlike the children in other centers described in this study which had mixed age groupings, these children were not especially kind and protective to the younger children. The youngest, a boy, was very slow in comparison to the others and was treated somewhat as an outcast by the children. Their attitude was a reflection of the teacher's behavior toward that child. The children did no limit testing and appeared involved and pleasant but were never excited, exuberant, or demanding. The atmosphere was always low-key.

Schedule in observed classroom

8:30-8:36 (eating). During breakfast the children sat so quietly at the table that the teacher asked, "What's wrong with you? Are you sick? You're so quiet this morning!" After her remarks, the children conversed with her and with each other, but they spoke in soft tones and were careful to take turns talking. On-task behavior was 100%.

8:40-8:56 (uniform participation). During a four minute transition during which the table was cleared and on-task behavior was 100%, the teacher explained to the observer that nothing else would be done until time to start class at 9:00 a.m. However, the children reminded her that Michael, the youngest child, was supposed to be looking at the color chart. After this reminder the teacher had Michael look at a wall chart containing not only the usual colors, but also peach, gold, and light green. She repeatedly asked him to identify colors which he was unable to do. After Michael twisted and mumbled in front of the chart for four minutes the teacher asked others to recite the colors on the chart. On-task behavior was 98.43%.

9:00-9:23 (transition). Following a four minute toileting transition during which on-task behavior was 87.50%, the teacher supervised the children as they sang a number of songs which they chose. They were allowed to move around and use appropriate gestures while singing. One older boy's disco dancing was ignored but when the youngest boy copied the dancing, he was reprimanded. On-task behavior was 98.21%.

9:29-9:32 (uniform participation). Following a six minute transition while the teacher gathered supplies and children conversed quietly (on-task behavior 100%), the teacher called the numbers as the children played Bingo. Only the older children could recognize numerals. On-task behavior was 97.50%.

9:35-9:49 (uniform participation). Following a three minute transition (on-task 93.75%), the children sat on the rug for nine minutes while the oldest child demonstrated how to arrange the letters of the alphabet in order. Three others had an opportunity to try to order the letters, but for the rest of the class the activity held little meaning or interest. On-task behavior was 91.07%.

9:50-10:07 (free choice). Following a one-minute transition during which on-task behavior was 100%, a group of three children was given beads to play with on the rug, another group of three was given legos, and a final group of two was given bristle blocks at the table. The groups were permitted to play with the assigned toys in the assigned places in any way that they chose. Most children constructed specific items which they showed to the teacher who indicated interest in their accomplishments. For the last four minutes of the period, the groups switched places with each other. The youngest child spent two minutes in time out. On-task behavior was 93.05%, and one hit was observed.

10:11-10:27 (uniform product). Following a four minute transition during which on-task behavior was 87.50% the children were each given a piece of paper onto which they pasted precut pieces of newspaper cartoons. They conversed quietly among themselves and with the teacher. Three times the teacher reminded them that they could not work and talk at the same time, but her reminder was in a half-hearted way and was ignored. On-task behavior was 95.31%.

10:30-10:50 (uniform participation). Following a three minute transition during which on-task behavior was 75%, the teacher let the children choose between a teacher-read story and a talking-book recorded story. They chose the recording. On-task behavior was 98.75%.

10:53-11:30 (outside). After a three minute transition (100% on-task), the children went outside to play.

Summary of observation and comments

Observations were made for a total of 180 minutes. Of that time 9.44% was spent in free choice with 93.05% on-task behavior, 1.38% off-task, 1.38% wandering, and 4.16% disruptive. Uniform participation occurred during 42.22% of the time, with 96.95% on-task behavior, 3.04% off-task, 0% wandering, and 0% disruptive. Uniform product occurred during 8.33% of the time with 95.31% on-task behavior, 4.68% off-task, 0% wandering, and 0% disruptive. Transitions occurred during 15.55% of the time with 93.75% on-task behavior, 4.46% off-task, 0% wandering, and 1.78% disruptive. Eating occurred during 3.33% of the observations with 100% on-task, and 0% disruptive. Outside play occurred during 23.55% of the time.

Of all observations, 95.58% were on-task, 3.30% off-task, 0.18% wandering, and 0.91% disruptive. One hit was observed.

No one transition was unusually long; however, the children went through eight separate transitions; and this was more than was generally found in other centers.

Although 17 minutes were correctly classified as free play, the children had no freedom to choose what they wanted to play with. Each child was allowed to change toys one time. The unit blocks, housekeeping toys, paints, transportation toys, etc. which are usually found in centers were not seen at Center J.

The observer and two readers rated this center unsatisfactory.

Center K

Size, staff, and children

Center K was licensed to care for 65 children ages 5 months to 7 years. At the time of the observation 50 children were enrolled in the center, and 18 children were in the 4-year-old children's classroom, and were thus included in the study.

Initially the teacher alone supervised the seven early arrivals, sending a child to another room to summon an aide any time it was necessary for the teacher to leave the room. After the late bus arrived at 9:12, both teacher and aide stayed in the classroom. The teacher presented lessons in an interesting manner, organized and utilized the space and materials well, and attained high on-task behavior and interest from the children, but she did not engage in any unplanned, spontaneous conversation with them. When children spontaneously told her news of themselves or their families, she either ignored them or replied "Un-huh." For example, during free choice time when one child excitedly told the teacher about her mother's making honey drippers, the teacher ignored her. During meal time, transitions, and free choice, she showed no interest in the children except to give abrupt directions. The aide was unobtrusive and abrupt, and followed the teacher's lead.

The lead teacher had attended graduate school, had taken child-related education at both the undergraduate and graduate levels, had worked at her current job for five years, and had worked previously at two local day care centers.

At 10:00 a.m. two adults were supervising a group of 18 children, providing a staff/child ratio of 1:9.

During the observation 18 of the 20 enrollees were present. The children played well together and exhibited high on-task behavior. Their responses during instruction indicated that they had mastered the skills and concepts which had been taught and that instruction had been regular and planned. Instruction had been planned for the whole group, and no individualization was apparent.

Schedule in observed classroom

8:30-8:59 (free choice). The seven children in attendance at the beginning of the observation period engaged in free choice activities with blocks, puzzles, and housekeeping. Children were permitted to move freely among the activities but tended to remain with one activity a long time. Elaborate block structures were built, puzzles were adeptly worked, and imaginative play in the doll house was highly verbal. No interest in the children or activities was shown by the teacher except for the giving of abrupt directions. On-task behavior was 96.55%.

9:06-9:28 (eating). Following a seven minute transition during which children picked up toys and washed hands with 100% on-task behavior, they ate breakfast in the classroom. At 9:12 the late bus arrived with 11 more 4-year-olds, each of whom routinely said "Good morning" to the teacher, hung up wraps, and either came to the table for breakfast or to the rug for free choice. The late arrivals sat quietly at the table without trying to eat for six minutes before grace was recited. Breakfast was leisurely, but not all children had finished eating when they were told it was time to go to the rug for circle time. On-task behavior was 89.65%.

9:28-9:39 (transition). A lengthy transition transpired while toys were picked up and breakfast was finished. On-task behavior was 92.22%.

9:39-10:03 (uniform participation). The first half of circle time was spent in singing, reciting the Pledge of Allegience, discussing the weather and calendar, and each child's correctly reciting his name, address, age, and birthdate. A game using bean bags to follow recorded directions was played. On-task behavior was 93.51%.

10:03-10:20 (uniform participation). The teacher presented a lesson from the Peabody Language Development Kit. It was well presented, and the children indicated clear understanding of the concepts. On-task behavior was 91.66%.

10:26-10:53 (uniform participation). During a six minute transition, children were divided into three rotating groups for block play, a cooking activity, and coloring. On-task behavior was 86.11%. Those children playing with blocks were able to share and build cooperatively without any direct supervision by an adult; children at the coloring table were careful to color well, to remain on-task, and to be quiet. Those children involved in mixing pudding with the teacher discussed concepts of color, taste, feel, and amount. On-task behavior was 97.43%.

10:58-11:30 (outside). Following a five minute transition for cleaning the room and washing hands, with on-task behavior of 88.88%, two groups went outside. The third group finished making instant pudding and then joined the others on the playground.

Summary of observation and comments

Observations were made for a total of 180 minutes. Of that time 16.11% was spent in free choice with 96.55% on-task behavior, 0% off-task, 3.44% wandering, and 0% disruptive. Uniform participation occurred during 37.77% of the time, with 94.61% on-task behavior, 5.38% off-task, 0% wandering, and 0% disruptive. Uniform product occurred during 0% of the time. Transitions occurred during 17.22% of the time with 91.70% on-task behavior, 8.29% off-task, 0% wandering, and 0% disruptive. Eating occurred during 11.11% of the observations with 100% on-task, 0% off-task, and 0% disruptive. Outside play occurred during 17.77% of the time.

Of all observations, 94.68% were on-task, 5.01% off-task, 0% wandering, and 0% disruptive. No hits were observed.

The complete lack of hitting behavior was unique to this and one other center. The children played and shared very well together even though the teacher did not encourage or discourage this behavior during the observed time.

The abrupt manner of giving directions and the lack of politeness observed in the teacher and aide were not mirrored in the children. The teacher instructed children in certain basic manners but they did not show concern for each other. She did not model good manners for them. Cognitive activities were well planned and well executed.

The observer and the two readers rated this center as satisfactory to marginal.

Center L

Size, staff, and children

Center L was licensed to care for 60 children ages 2 to 5. At the time of the observation 44 children were enrolled in the center, and eight children were in the 4-year-old children's classroom, and were thus included in the study.

The teacher stated that she had enrolled in a program for Child Development Associate credentialing but had been unable to meet the requirement for on-job training because of the credentialing requirement to establish a classroom with learning centers. The type of classroom organization required for the credentialing was not compatible with the policy set for Center L. The teacher patterned herself after the mothering model and seemed very protective. The children's shoes were kept tightly tied, clothing buttoned, socks straightened, etc. Children were reminded not to pull strings on their clothes because their mothers had worked hard to buy them nice clothes. Frequent inquiries were made about their health and children were reminded that a child returning after an illness needed special consideration. Perhaps as a result of center policy that children should be quiet and orderly, the teacher gave 15 directions to ,"Calm down," "Talk in your inside voice," etc. in a typical 12 minute period. The children were actually being much quieter than generally found in a center even before the teacher reminded them to calm down. Several children were placed in time-out to help them calm down, yet at no time had any child seemed loud or rowdy to the observer.

The teacher had worked at the center for one year, had worked two years in another center, had completed 11 years of school, and had taken relevant courses in junior college. She engaged in many friendly conversations with the children and appeared aware of each child's needs.

At 10:00 a.m. a group of eight children was supervised by one teacher. The staff/child ratio was 1:8.

The eight children were well-behaved, appeared to be enjoying their experiences, and did not test limits. They were given freedom to talk with each other as long as they did so quietly but little freedom in choice of activity or in using materials in innovative ways. For example, while they were playing in the housekeeping area, the teacher reminded them that they should not be pretending to serve popcorn and pancakes at the same meal, because their mothers would not do so. The teacher suggested that one person in the housekeeping area should cook, another wash dishes, and another set the table, "just like mama." When she asked one child if his mother would put a pot on the table as he was doing instead of on the stove, he replied, "I ain't no mama." The children seemed very fond of the teacher and often gave and received hugs.

Schedule in observed classroom

8:30-8:41 (free choice). While the last child finished eating breakfast, the others were free to choose books to read on the rug and to converse with the teacher and other children. On-task behavior was 95.31%.

8:46-9:23 (uniform participation). Following a transition for toileting with 87.50% on-task behavior, the children stood for opening exercises and singing, and then sat at the table for a discussion of calendar and weather, alphabet recognition, unison counting to 30, finding their printed names, a discussion of the five senses, and identification of the numerals 1-10. Number identification was poor. On-task behavior was 96.52%.

9:24-9:50 (free choice). Following a rapid transition with 100% on-task behavior, the children were given puzzles and peg boards to use at the table. Children were instructed to exchange completed puzzles, but tended to just sit when they had completed one. Of all observations during this period 17.30% were of children just sitting with a completed puzzle. On-task behavior was 72.11%.

9:56-10:13 (uniform participation). Following a transition with 100% on-task behavior the teacher read two appropriate stories to the children. On-task behavior was 90.62%.

10:13-10:36 (free choice). The children were allowed to choose to play in either the housekeeping or block area. Each area was defined by a rug, and no one was allowed to go off of the rug because "they might get a cold." Children were required to remain with their chosen activity during the entire period. Although only three observations were made of children misbehaving, 14 of the observations were of children placed in time-out in order to "calm down." The manner in which they were permitted to play was restrictive, and the teacher reminded them to play quietly 25 times during the 17 minute activity. On-task behavior was 80.68%.

10:36-10:55 (transition). Children were required to put all toys away in the exact place they belonged. Clean up activities were followed by toileting, shoe tying, and being properly bundled and buttoned for outside play. On-task behavior was 93.75%.

10:55-11:15 (outside play).

11:15-11:24 (transition). With 79.16% on-task behavior the children came inside, removed wraps, and waited on the rug while two children assisted the teacher in table setting. They were given very precise directions regarding how to correctly and neatly set the table.

11:24-11:30 (uniform participation). Children recited nursery rhymes. On-task behavior was 87.50%.

Summary of observation and comments

Observations were made for a total of 180 minutes. Of that time 33.33% was spent in free choice with 80.85% on-task behavior, 3.44% off-task, 6.89% wandering, and 8.42% disruptive. Uniform participation occurred during 33.33% of the time, with 94.19% on-task behavior, 2.67% off-task, 0% wandering, and 3.12% disruptive. Uniform product occurred during 0% of the time. Transitions occurred during 22.22% of the time with 92.36% on-task behavior, 4.86% off-task, 0% wandering, and 2.77% disruptive. Eating occurred during 0% of the observations. Outside play occurred during 11.11% of the time.

Of all observations, 88.30% were on-task, 3.52% off-task, 2.88% wandering, and 5.28% disruptive. Nine hits were observed.

A great deal of time was spent in transitions while details of proper dressing, cleaning up, etc. were attended to. Additionally, with only one staff member in the class the children had to wait in transition while the teacher prepared the next activity. Although 33.33% of the time was spent in free choice activities, the children were not actually allowed freedom to move or be creative in their play. Cognitive activities had been planned for the group, and no variations were made in the plan for individual differences in children.

The observer and the two readers rated this center as satisfactory to marginal.

Center M

Size, staff, and children

Center M was licensed to care for 40 children ages 2 to 6. At the time of the observation 40 children were enrolled in the center, and eight children were in the 4-year-old children's classroom and were thus included in the study.

The teacher was well organized, and she was warm and accepting with the children. The day's activities had been well planned in advance and special help was planned for the children who were at lower developmental levels. The teacher appeared to follow the model of a teacher of specific cognitive skills within a framework of "hands on" interesting activities in a play format. A grandmother, whose salary was paid by a federal grant other than Title XX was present but generally uninvolved. When she was involved she commanded children to be quiet and to sit still. The aide was also well organized and warm and accepting of children; additionally, she served as a leader and model for the children in role playing activities. Both teacher and aide spent all of the time actively involved with the children or with related classroom duties.

The teacher had completed the eleventh grade, been employed in the center for five years, had taken relevant courses at the junior college, had not been employed in any other child serving position, and had participated in inservice training and workshops.

At 10:00 a.m. a group of eight children were supervised by two adults. Staff/child ratio was 1:4.

Eight of the 10 4-year-old children enrolled were present during the observation. Although there appeared to be a wide range of developmental levels, none appeared retarded. All were alert, and one child appeared to be gifted. As a group they were all especially creative and adept when role playing, exhibited a positive self concept, were relaxed, and were affectionate and respectful toward staff.

Schedule in observed classroom

8:30-8:43 (uniform participation). With eight children present the teacher conducted opening exercises which included the Pledge of Allegience, a patriotic song, and the introduction of toy doctor and nurse kits. After the aide arrived at 8:36, each adult interacted with four children as the children handled and discussed the use of each medical item. During this activity on-task behavior was 96.42%.

8:46-9:00 (uniform product). Following a three minute transition with 100% on-task behavior, the teacher assisted the two children with advanced writing skills in a writing activity appropriate for their abilities while the aide supervised the remaining children in an appropriate tracing and writing activity. The children were permitted to converse with each other throughout the activity. On-task behavior was 83.33%.

9:04-9:12 (uniform participation). Following a four minute transition with 93.75% on-task behavior and one hit, the class was again divided into two groups. The first group, assisted by the aide, classified blocks by color and placed them in mathematical sets. The second group, with the teacher, utilized a game format in counting from 1-10 dots. On-task behavior was 96.87%, and one hit was observed.

9:12-9:29 (uniform product). Each child drew a picture inspired by the new medical kits and then moved to the library corner to look at books. The grandmother listened to two children "read." On-task behavior was 100% and 7 hits were observed.

9:35-10:00 (uniform participation). Following a six minute transition period during which the children exhibited 100% on-task behavior while lining up and going to another part of the building for toileting, they played a game with the aide. After this the teacher led an active game involving following directions and understanding the vocabulary of position and ways of moving. Drill in alphabet recognition concluded the activity. On-task behavior was 97.11%, and one hit was observed.

10:02-10:45 (uniform participation). Following a two minute transition, three children went to the table with the teacher for a "hands on" activity involving letter recognition. The remaining children had singing and role playing activities with the aide. On-task behavior was 95.45%, and one hit was observed.

10:50-11:26 (uniform participation). Following a five minute loosly organized but smooth and happy transition with 87.50% on-task behavior and one hit, the children sat on the rug for figer plays, a story told by the teacher, a well-told story by the child who appeared gifted, and singing. The rainy weather prevented the children from spending this time on the playground. On-task behavior was 79.86%, and two hits were observed.

11:26-11:30 (transition). With 100% on-task behavior the children got ready to eat lunch.

Summary of observation and comments

Observations were made for a total of 180 minutes. Of that time 0% was spent in free choice. Uniform participation occurred during 69.44% of the time, with 91.60% on-task behavior, 7.0% off-task, 0% wandering, and 1.36% disruptive. Uniform product occurred during 17.22% of the time, with 88.75% on-task behavior, 10.00% off-task, 0% wandering, and 1.25% disruptive. Transitions occurred during 13.33% of the time with 95.83% on-task behavior, 0% off-task, 0% wandering, and 4.16% disruptive. Eating occurred during 0% of the observations. Outside play occurred during 0% of the time.

Of all observations, 91.71% were on-task, 6.62% off-task, 0% wandering, and 1.65% disruptive. Eight hits were observed.

Had the children been able to follow their normal schedule, uniform participation would have been reduced to 47.22%, and outside play would have occupied 22.22% of the time.

Behavior which was categorized as on-task in this relaxed atmosphere would have been disruptive or off-task in a more restrictive environment. The description of a large block of time spent in uniform participation may have given the impression of regimentation, but in actuality it represented freedom within a framework of focused participation. Much of the time spent in uniform participation was very similar to time which could have been classified as free play.

The individualizing of the curriculum was beneficial to the slower students, but the observer felt that the top children in the group could have reached a fuller development of potential if their cognitive needs had been attended to as well as were the needs of the slower children.

The observer and the readers rated this center as good.

Center N

Size, staff, and children

Center N was licensed to care for 40 children ages 2 to 5. At the time of the observation 38 children were enrolled in the center, and 9 children were in the 4-year-old children's classroom and were thus included in the study.

Budgeting problems were resolved by hiring only four classroom teachers; each served as a homeroom teacher and a learning center director. Each staff member was assigned an aide through Youth Employment Services with salaries paid by YES. The children were located in one large open-concept room divided by low shelves into four classroom areas; each area served as a homeroom for 10 enrollees and as a learning center into which each class rotated for 24 minutes at a time. The level of coordination among learning centers reflected time spent by staff in thorough advance planning both collectively and separately. The YES aide assigned to each lead teacher performed housekeeping chores, supervised children on the playground, served food, set out required materials, and took children to the bathroom. One lead teacher was responsible for art for all four groups, another for science, another for music and language, and the fourth for math.

The teacher exhibited interest and enthusiasm, but the aides were uncommunicative and appeared withdrawn and bored. The homeroom teacher for the 4-year-olds had been employed at the present facility for 18 months, had completed 5 courses in childcare, had graduated from the junior college, and had worked previously as an aide in a public school.

At 10:00 a.m. two staff members were supervising a group of nine children. Staff/child ratio was 1:4.5.

The nine children worked and played well together, had adapted satisfactorily to moving from learning center to learning center at specified times, and exhibited a high level of on-task behavior as they participated enthusiastically in well planned activities which held their attention. Provisions had not been made for meeting the developmental needs of any particular child but rather for the needs of each homeroom group of children.

Schedule in observed classroom

8:35-9:59 (transition). Following a five minute transition from breakfast and free play to homeroom activity (100% on-task), the teacher conducted circle time, which included roll call, the Pledge of Allegience, singing, fingerplays, and work with manipulatives to develop math concepts of 1-7. On-task behavior was 98.98%.

8:59-9:17 (uniform participation). A math lesson teaching shapes and number recognition was taught through a "hands on" game of "Go Fishing." Throughout the center the theme for the week was "Sea Animals." On-task behavior was 86.66%.

9:19-9:43 (uniform participation, 17 minutes, free choice 7 minutes). Following a smooth two minute transition with 100% on-task behavior as the children moved to the science center, the theme of "Sea Animals" was further carried out in the making of a tuna fish salad to be eaten later at afternoon snack time. The cooking activity was well planned and conducted. The lesson included concepts of animals, smell, color, discovery, amount, and days of the week. When the children finished making salad they played with blocks until the bell signalled a move to another learning center. One child cried over having to leave the airplane he had been building. On-task behavior was 94.44%.

9:45-10:09 (uniform participation). Following another rapid transition with 75.00% on-task behavior, another teacher led the children in alphabet recognition, singing, and a game of muscial chairs. The theme of sea animals was further carried out in the high interest story read by the teacher. On-task behavior was 91.66%.

10:09-10:14 (transition). The aides supervised the children as they put on wraps and lined up to go outside. The aides did not have the organization and control observed in the teacher. On-task behavior was 38.88% and seven hits were observed.

10:14-10:35 (outside). The children played on a well equipped playground while supervised by the aides who monitored but did not interact with children.

10:35-10:42 (transition). Again inexpertly managed by aides, the children lined up, came inside, went to the toilet, and reported to the art learning center. On-task behavior was 77.77%; two hits were observed.

10:42-11:08 (uniform product, 8 minutes; free choice, 18 minutes). After spending eight minutes painting a large predrawn fish, children played with blocks in the art area until the transition bell rang. On-task behavior was 99.03%.

11:12-11:22 (uniform participation). Following a four minute transition to pick up blocks and wash hands (on-task 95.83%), the children set the table for lunch in their homeroom area. On-task behavior was 91.66%.

11:22-11:30 (eating). Children were encouraged to talk together while eating. On-task behavior was 91.66%.

Summary of observation and comments

Observations were made for a total of 180 minutes. Of that time 13.88% was spent in free choice with 96.26% on-task behavior, 0.93% off-task, 0% wandering, and 2.80% disruptive. Uniform participation occurred during 51.66% of the time, with 93.09% on-task behavior, 5.71% off-task, 1.19% wandering, and 0% disruptive. Uniform product occurred during 4.44% of the time with 100% on-task behavior, 0% off-task, 0% wandering, and 0% disruptive. Transitions occurred during 13.88% of the time with 78.94% on-task behavior, 11.84% off-task, 0% wandering, and 9.21% disruptive. Eating occurred during 4.44% of the observations with 87.50% on-task, 9.37% off-task, and 3.12% disruptive. Outside play occurred during 11.66% of the time.

Of all observations, 92.19% were on-task, 5.44% off-task, 0.58% wandering, and 1.76% disruptive. Nine hits were observed.

Although 93 minutes were spent in uniform participation, the children were given considerable freedom within the format of uniform participation,and they were seldom reminded by the teachers to sit still or to be quiet. Children moved very rapidly and smoothly from one learning center to another. It was the transitions spent in toileting routines and in preparing to go outside under the aide's direction that accounted for most of the transition time.

High on-task behavior appeared to be attributable to thorough, coordinated planning; to skills in classroom management; and to an interesting program. Cognitive activities were planned for the group, and no individualization to meet children's differing needs occurred.

The observer and the two readers rated this center as satisfactory to marginal.

Centers Enrolling 12-29 Children

Center O

Size, staff, and children

Center O was licensed to care for 30 children ages 2 to 6. At the time of the observation 28 children were enrolled in the center, and 10 children were in the 4-year-old children's classroom, and were thus included in the study.

The teacher confided to the observer that the children were spoiled and required a great deal of supervision. Observation indicated that she tended naturally to follow the model of a supervisor of behavior but she indicated that teaching was expected of her. However, she had great difficulty getting and holding children's attention while trying to teach a lesson. Lessons were poorly planned and poorly executed.

The teacher had completed 40 hours toward an Associate in Science degree in child care at a junior college, had been employed at the center two years, and had not been previously employed in a day care center.

At 10:00 a.m. one adult was supervising a group of 10 children. Staff/child ratio was 1:10.

Ten of the 28 children enrolled in the center were assigned to the class for 4-, 5-, and 6-year-old children. However, during free choice period all 22 children in attendance were combined. No opportunities existed for the observer to assess cognitive development of the children. In general, they appeared alert, boisterous, aggressive, creative, and quick to cry. Four mischevious, aggressive boys kept the teacher and children disrupted. However, all children, including the four aggressive boys, were tender and motherly to the smaller children in the center.

Schedule in observed classroom

8:40-8:59 (uniform participation). Both classes were combined for singing led by the teacher of the younger children. The youngest child ran around the room during the music activity and during the Pledge of Allegience which followed. On-task behavior was 83.33%.

9:01-9:43 (free choice). Following a two minute transition all children were allowed to move any place in the room and play with all toys and equipment. Musical instruments, puzzles, housekeeping, dolls, manipulatives, large blocks, play dough, and scissors were used by children as they moved often from one area to another. Many children wandered around the room without quickly becoming involved in a new activity; several children played "chase," running into children who were involved in other activities. All children, even the roughest boys, exercised care and concern for the younger children in the group. On-task behavior was 82.25%, and 12 hits were observed.

9:51-10:21 (uniform participation). After having 55.55% on-task behavior during an eight minute clean up period, the 4-year-old children and their teacher separated from the remaining children for circle time. The teacher used a picture chart to present classification tasks. The children were so disruptive and off-task that the director came to tell them how sad their behavior made her. The teacher then continued the circle time. When on-task behavior did not improve, the teacher put two children in time out; for one of these the time out was justified, and the other was unjustly punished. On-task behavior was 73.88%, and 25 hits were observed.

11:24-11:17 (outside play). Following a three minute transition period with 100% on-task behavior, the children went outside to play. Two hazards were evident on the playground: jump ropes made of rubber hoses were misused by children as reins around each others' neck and as whips, and a puddle had formed where the children played. The teacher asked the children not to get in the water because it might be from a septic tank but did not consistently enforce the request.

11:20-11:26 (uniform participation). Following a three minute transition with 50.00% on-task behavior and three hits, the director conducted a circle time for the 4-year-olds. She had difficulty getting the children quiet before beginning the lesson on safety. The extent of the safety lesson was that, "Safety begins with an 'S' and therefore we will connect dots on a ditto sheet to make an 'S.'" During this period on-task behavior was 75.00%, and, although no hits were observed, disruptive behavior was 18.75%.

11:28-11:30 (uniform product). Following a two minute transition during which children moved from the rug to the tables with 100% on-task behavior, they completed the ditto sheet in two minutes.

Summary of observation and comments

Observations were made for a total of 170 minutes. Of that time 24.70% was spent in free choice with 82.25% on-task behavior, 3.67% off-task, 11.25% wandering, and 2.81% disruptive. Uniform participation occurred during 32.35% of the time, with 76.49% on-task behavior, 12.31% off-task, 0% wandering, and 11.19% disruptive. Uniform product occurred during 1.17% of the time with 100% on-task behavior, 0% off-task, 0% wandering, and 0% disruptive. Transitions occurred during 10.58% of the time with 79.06% on-task behavior, 15.11% off-task, 2.32% wandering, and 3.48% disruptive. Eating occurred during 0% of the observations. Outside play occurred during 31.17% of the time.

Of all observations, 80.50% were on-task, 7.53% off-task, 6.45% wandering, and 5.56% disruptive. Forty-two hits were observed.

Time spent in transitions was short although on-task behavior during transitions was low. Free choice activities were spatially well arranged, and a sufficient variety of activities was available. Inadequate supervision, organization, and limit-setting prevented free choice from being as meaningful a period as it could have been. Children seemed overwhelmed by the choices and could have benefited from teaching methods to lengthen on-task behavior. Disruptive behavior was higher than in any other center in which observations were made.

Cognitive activities were poorly selected and poorly presented. On-task behavior was low during presentation of cognitive activities.

The observer and the two readers rated this center as unsatisfactory.

Center P

Size, staff, and children

Center P was licensed to care for 15 children ages birth to 6 years. At the time of the observation 18 children were enrolled in the center, and 12 children were in the 4-year-old children's classroom and thus were included in the study.

The teacher of the target classroom was well organized, relaxed, and warm in her relationship with children. The owner often passed through the classroom. She hugged and conversed with children each time she came through. Both teacher and director had a word of welcome for each arriving child and parent.

The staff was limited in designing activities because there were no materials for the usual doll house play, block play, woodworking, or easel painting. The shelves were empty except for books, a few manipulatives, two balls, and a few art supplies. The bathroom adjoined the classroom but did not contain a sink. The only hand washing facility was a laundry tub in the classroom which was too high for the children to reach.

The teacher had completed the eleventh grade, had been employed at the center four years, had previously worked at another center, had participated in inservice training, and had not taken any courses relative to child care.

At 10:00 a.m. one adult was supervising a group of 12 children. The staff/child ratio was 1:12. Licensing requirements restricted the ratio to 1:10 or lower.

Seven 4-year-olds, three 2-year-olds, and three 3-year-olds were in the classroom.

The children appeared to have adjusted well to the mixed-age grouping. A 2-year-old hit children on five occasions but no child retaliated. The older children assisted the younger children in finding their places or moving their chairs. Frequent patting and hugging was done, not so much of the younger children by the older, but of younger children by equally young children. The ability to share and be kind to one another was very evident. One child appeared retarded, one was very withdrawn, and the others were active and alert.

Schedule in observed classroom

8:40-9:00 (uniform participation). The children sat in chairs and watched Captain Kangaroo with 100% on-task behavior. Initially four were present, but at the end of the program 10 had arrived.

9:01-9:14 (eating). Following a one minute transition during which the children moved chairs to the table, a snack was served. The children and teacher conversed pleasantly and ate leisurely. Children were 100% on-task.

9:16-9:29 (uniform participation). Following a two minute transition with 100% on-task behavior, activities commonly associated with circle time were conducted with teacher and children seated at the table. One late arriving child exhibited tantrum behavior when his mother left, and he was removed from the group for six minutes by the director. Children who were called upon to name days of the week stood beside their chairs to recite. Color and picture identification followed recitation. The activity was conducted in a low key, pleasant manner. During the period on-task behavior was 91.66%.

9:34-9:56 (uniform product). Following a five minute transition period during which the children were grouped and materials were passed out (81.66% on-task and one hit), the seven oldest children colored a page from a color book, and the five younger children were divided into two groups to play with manipulatives on the rug. After completing the coloring activity the older children could select a book or puzzle. Because all of the 4-year-olds, which was a majority of the class, were involved in activity classified as uniform product, this period has been classified in a like manner even though the 2- and 3-year-olds were in a free choice activity. The five youngest children shared manipulatives, talked to each other, and patted and hugged each other in an unusual display of sociability for such young children. During this period on-task behavior was 99.24%. Two hits were observed.

10:02-10:30 (uniform participation). After spending siz minutes in transition while toys were picked up and on-task behavior was 100%, the children sat around a table where the teacher cooked play dough.

The children tasted the various ingredients, put flour on their faces, and discussed differences in the way the ingredients felt. No one was instructed to be quiet, but the children were asked to remain in chairs. Much pleasant conversation ensued. On-task behavior was 95.37%.

10:38-11:20 (outside). Following an eight minute transition period during which the children put on coats and the teacher straightened the room (on-task, 90.62%; two hits), the children went outside to play.

11:20-11:30 (transition). Children hung up wraps and were each given a damp wash rag with which to wash up before lunch. On-task behavior was 100%.

Summary of observation and comments

Observations were made for a total of 170 minutes. Of that time 0% was spent in free choice. Uniform participation occurred during 35.88% of the time, with 95.30% on-task behavior, 3.69% off-task, 0% wandering, and 1.00% disruptive. Uniform product occurred during 12.94% of the time with 99.24% on-task behavior, 0% off-task, 0% wandering, and 0.75% disruptive. Transitions occurred during 18.82% of the time with 94.13% on-task behavior, 4.69% off-task, 0% wandering, and 1.17% disruptive. Eating occurred during 7.64% of the observations with 100% on-task, and 0% disruptive. Outside play occurred during 24.70% of the time.

Of all observations, 96.23% were on-task, 2.86% off-task, 0% wandering, and 0.90% disruptive. Ten hits were observed.

Transitions occupied a greater percentage of time than a review of the literature would have led one to expect in a small center. However, the length was probably primarily attributable to there being only one adult in the classroom; this made it necessary for children to wait for the teacher to prepare and organize each new activity.

The lack of free choice activities may have been partly a result of the inadequate supply of toys but was probably also due to the teacher's preference that children sit in chairs. The 2- and 3-year-olds sat on the rug playing with manipulatives for 22 minutes, but at all other indoor times, except during transitions, children were in chairs.

Colors, taste, and picture identification were the only cognitive type concepts presented. Although the oldest children could identify pink and purple, the questions asked by the teacher centered around the primary colors. Except that the 4-year-olds colored a picture while the younger children played with manipulatives, no attempt was made to meet the varying developmental levels.

Social behavior, as indicated by sharing and concern for others, cooperative play, and peer conversations, was especially well developed. The children reflected the example of the teacher. Provisions for health and safety were lax: A bottle of Clorox was on the floor with the youngest children; for short periods no adult was in the room with the children; and there was no provision for washing hands after using the toilet.

In planning cognitive activities, no allowance was made for the wide age and developmental range of the children.

The observer and two readers rated this center unsatisfactory based on a concern for the lack of sanitation and safety.

Center Q

Size, staff, and children

Center Q was licensed to care for 15 children ages 2 to 6. At the time of the observation 15 children were enrolled in the center, and eight children were in the 4-year-old children's classroom, and were thus included in the study.

The center, located in a private home, was staffed by a director/teacher and her husband/aide on the day observations were made. Both had a soft-spoken, calm manner in giving directions to children. Lesson plans had been made in advance, and all needed materials were at hand. Off-task behavior was ignored whenever possible, but on-task behavior was not praised. The model which was being followed was that of a facilitator, elaborator, and teacher. The teacher had completed four years of college and held a degree in secondary education, had previously worked in a library outreach program serving preschoolers, and had been employed at the center seven months.

At 10:00 a.m. two adults were supervising a group of eight children. Staff/child ratio was 1:4.

Eight of the 15 enrollees were present during the observation. Their ages ranged from 2 to 5 years. The 2-year-old repeatedly hit other children and staff and had temper tantrums. Of all the behaviors which were recorded as off-task, wandering, or disruptive 31.25% were attributed to the 2-year-old. Except for the 2-year-old, all children appeared alert. The 4- and 5-year-olds were eager to learn, and with one exception they did not stand out as being either retarded or above average in ability. All children were kind to the disruptive 2-year-old. One 4-year-old was repeatedly told by the teacher to hit the 2-year-old back because the 2-year-old needed to learn not to hit, but the 4-year-old had trouble making himself hit hard whereas the 2-year-old gave resounding slaps. The children played and worked in a quiet, relaxed manner, and the teacher indicated she wanted the children to act alive. She did not encourage conformity.

Schedule in observed classroom

8:30-9:00 (free choice). The children were free to play in the housekeeping area, watch television, or play with blocks and cars. Except for the youngest child they tended to play with one thing for an extended period of time. Without adult interference, children selected toys rather than television 93.88% of the time. After the aide joined the group and commented on what was happening on television, children preferred toys to television 82.42% of the time. On-task behavior was 93.98% and two hits were observed.

9:05-9:45 (uniform participation). Following a rapid transition with 93.98% on-task behavior during which toys were picked up, circle time was conducted. It included roll call, days of the week, physical exercises, discussion of types of communication with a related "hands on" activity, and singing while the teacher accompanied on the autoharp. The children remained on the rug, but few limits were set. During the singing children were encouraged to sing out with, "Are you alive or are you dead--you're alive--that means I want to hear some voices." On-task behavior was 83.20%. Eight hits were observed.

9:51-10:05 (uniform product). Following a six minute transition during which on-task behavior was 96.42%, the children each colored a picture of a telephone. When one child criticized the way another colored, the teacher said, "He doesn't have to color like you--he's not you." On-task behavior was 84.09%, and only two children seemed to really care about how well the picture was colored. The youngest child hit 14 times.

10:09-10:59 (uniform participation). Following a four minute transition during which on-task behavior was 100%, the four younger children played with blocks and then went outside with the aide, while the four older children remained with the teacher. Only the four older children were charted during this segment of the morning. The children lounged on the rug while the teacher led them in "hands on" counting and number recognition activities and in verbal activities concerning initial consonants and rhyming words. On-task behavior was 94.51%.

11:01-11:19 (free choice). Following a two minute transition during which on-task behavior was 100%, the four children inside with the teacher were free to select puzzles to put together. The teacher asked appropriate arithmetic questions about the activity. On-task behavior was 97.50%, and two hits were observed.

11:19-11:30 (uniform participation). The eight children came together again on the rug for story time. The teacher read an appropriate story in a suspenseful manner and encouraged children to make sounds and gestures to accompany the story. All children were interested except the 2-year-old. On-task behavior was 86.36%.

Summary of observation and comments

Observations were made for a total of 180 minutes. Of that time 26.66% was spent in free choice with 94.93% on-task behavior, 4.05% off-task, 0.67% wandering, and 0.33% disruptive. Uniform participation occurred during 56.11% of the time, with 87.40% on-task behavior, 9.25% off-task, 1.11% wandering, and 2.16% disruptive. Uniform product occurred during 7.77% of the time with 84.09% on-task behavior, 10.22% off-task, 0% wandering, and 5.68% disruptive. Transitions occurred during 9.44% of the time with 9.78% on-task behavior, 0.70% off-task, 0% wandering, and 1.40% disruptive. Eating occurred during 0% of the observations. Outside play occurred during 0% of the time.

Of all observations, 90.71% were on-task, 6.67% off-task, 0.77% wandering, and 1.83% disruptive. Twenty-eight hits were observed.

Although a large percent of time was spent in uniform participation, the group was very small, conformity was not encouraged, verbalizations were frequent, and "hands on" activities were included. Even when each child participated in the same activity, each one was able to participate in his own individual style. A portion of circle time was the only time children seemed disinterested.

A variety of cognitive activities were presented but the children did not appear to have sufficient background skills to accomplish the tasks satisfactorily. During the 50 minute period of instruction given to the four older children, very few correct answers were given, and the corrective feedback was not understood by the children. No progress in knowledge acquisition resulted during the 50 minutes of instruction.

The observer and two readers rated this center satisfactory to marginal.

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BIOGRAPHICAL SKETCH

A native of Oak Park, Illinois, Nancy Reddy is the daughter of Baxter and Mildred Lightfoot. She graduated from Clearwater High School in 1946. She received an A.A. at Stephens College, Columbia, Missouri, in 1948. She earned a Bachelor of Arts degree in sociology from the University of Florida at Gainesville in 1950, and a Master of Education in special education from the University of North Florida at Jacksonville in 1975. She has studied with the cooperative doctoral program with the University of Florida and University of North Florida.

She has taught in the public schools of Duval County, Florida; been a day care center teacher, educational director, and director; and is currently Executive Director of the Episcopal Child Day Care Centers, Inc., at Jacksonville, Florida.

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

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This dissertation was submitted to the Graduate Faculty of the Department of Educational Administration and Supervision in the College of Education and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Education.

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